



FAIRFAX COUNTY PLANNING COMMISSION

Application Number: January 28, 2015
2232-S15-9

PUBLIC HEARING FOR PLANNING DETERMINATION

Pursuant to
Va. Code Sec. 15.2 - 2232

Public Hearing Date: January 28, 2016 at 8:15 p.m.

Applicant: **Cellco Partnership d/b/a Verizon Wireless and Milestone Tower Limited Partnership III**

Proposed Use: Telecommunication Facility – new monopole

Supervisor District: Springfield District

Subject Property Tax Map ID: 0882 01 0007

Subject Property Address: 9211 Old Keene Mill Road, Burke, VA 22015

Area of Subject Property: 3.9 acres

Area of Proposed Facility: 169,884 square feet

Application Accepted: November 3, 2015

Recommendation: In accordance with Va. Code Sec. 15.2-2232, as amended, staff recommends that the Planning Commission find that the proposal by Cellco Partnership d/b/a Verizon Wireless and Milestone Tower Limited Partnership III, to construct a telecommunications facility at 9211 Old Keene Mill Rd, Burke, VA 22015, **is substantially in accord** with provisions of the adopted Comprehensive Plan.

PLANNING DETERMINATION

Section 15.2 -2232 of the Code of Virginia



Number: 2232-S15-9

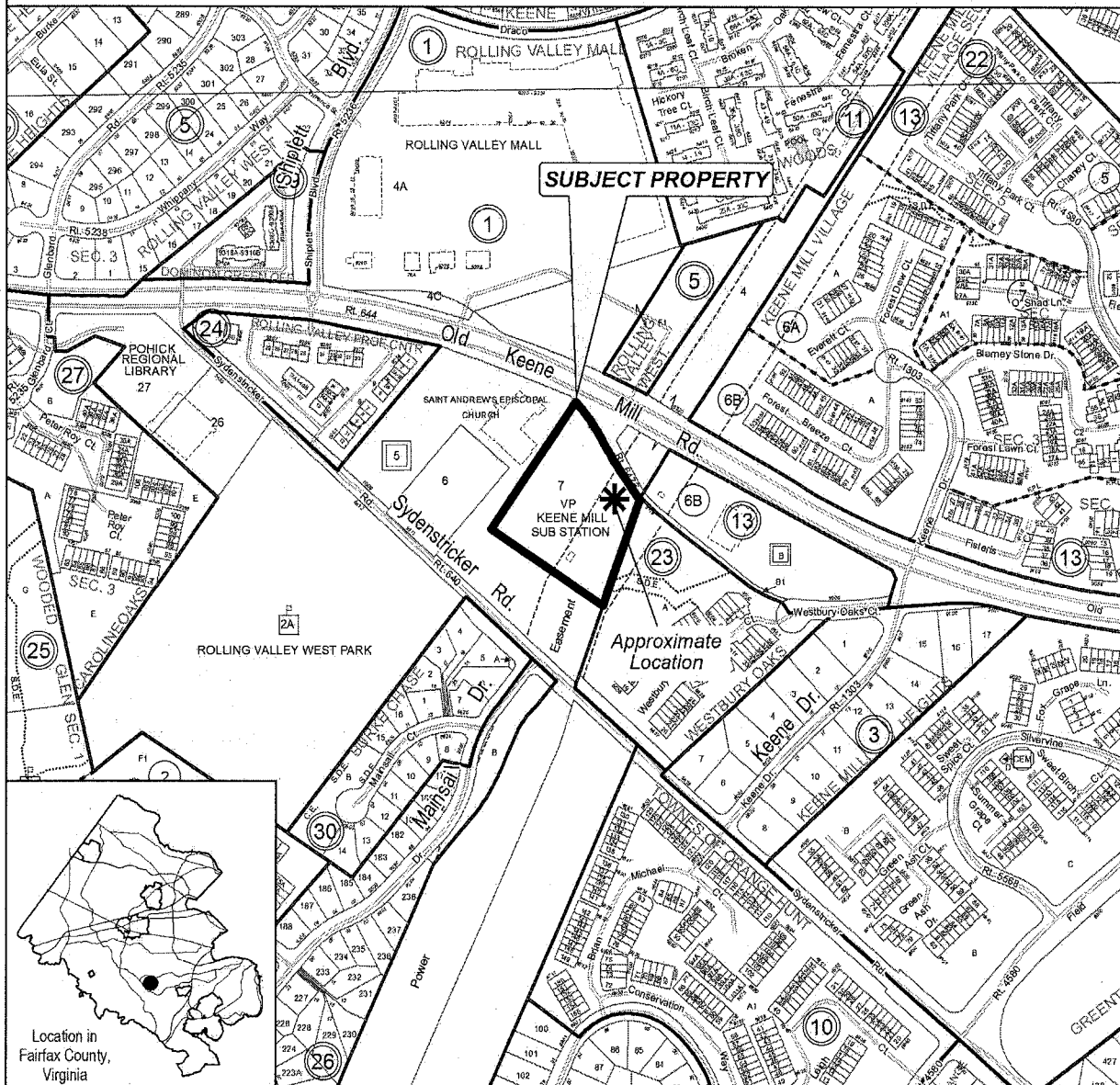
Acreage: 3.90 Ac.

District: Springfield

Tax Map ID Number: 88-2 ((1)) 7

Address: 9211 Old Keene Mill Rd.
Burke, VA 22015Planned Use: Public Facilities, Gov't. &
InstitutionalApplicant: Cellco Partnership d/b/a Verizon
Wireless and Milestone Tower Limited Partnership III

Proposed Use: Telecommunications

Location in
Fairfax County,
Virginia

500 FEET

PREPARED BY THE DEPARTMENT OF PLANNING AND ZONING
USING FAIRFAX COUNTY GIS

APPLICATION***Attachment A***

Proposal: Construct a new 130' monopole with 12 antenna and associated equipment
Proposed Use: Telecommunication facility
Applicant: Cellco Partnership d/b/a Verizon Wireless and Milestone Tower Limited Partnership III
Subject Property: 9211 Old Keene Mill Road, Burke, VA 22015; Tax map 0882 01 0007
Zoning District: R-1
Existing conditions: The site is located at the Keene Mill Substation with an existing Virginia Electric and Power Company electrical transmission easement that crosses the substation property.

Project Justification: The applicant states that the proposed facility is needed to provide and improve wireless coverage along and around Old Keene Mill and Sydenstricker Roads and greatly enhance service for customers using the nearby park and ride facility, shopping and business centers, library and park. In addition, the site will enhance in-building coverage to the homes of residents in an area that currently has poor LTE coverage.

Facility: See application (*Attachment A*) for full description:

- **Structure** – 130' tall monopole with a galvanized finish. The applicant will install 12 panel antennas. Space for four additional carriers will be provided on the structure. A 6' lighting rod will be located at the top of the pole.
- **Location** – The monopole will be located in the northeast quadrant of the property, within the existing utility easement that runs through the property, and outside the fenced substation area. The monopole will be located approximately 457' from the nearest residential property to the south east (at Westbury Oaks Court) and approximately 75' from the nearest roadway, an access roadway off of Old Keene Mill which defines the property's northern edge.
- **Antennas** – 12 panel antennas; 6 measuring 96.6"H x 11.9"W, 6 measuring 50.9"H x 12"W; gray color. An antenna platform will be affixed at the 130' level and the antennas will be attached with a RAD center of 130'. The tops of the antennas will be at a height of 134'.
- **Equipment cabinets** – One DC Polar generator measuring 75.5"H x 29.6"W x 49.4"D, one cabinet measuring 6'2"H x 2'8"W x 2'9"D, one cabinet measuring 6'1"H x 2'8"W x 2'8"D, one Telco cabinet measuring 46.2"H x 36.4"W x 39.4"D. Equipment cabinets located on a 20' x 12' concrete equipment slab under an 8'4" tall canopy cover within a fenced compound.
- **Compound and Screening** – Monopole and equipment compound to be 28' x 52', to include future carrier lease areas, and to be screened by an 8' tall chain link fence and vegetation including significant tree cover on property edge.
- **Access** – Access from Old Keene Mill Road, on access roadway route 6475 along the property's northern edge, to the compound gravel access driveway.
- **Operations** – unmanned; operates 24 hours/day; routine maintenance approximately once or twice per month.

Off-Site Impacts: The applicant states that the proposed facility will be located in an area that is surrounded by non-residential uses, including places of worship and the commuter park and ride facility across Old Keene Mill Rd. The border of the property has ample tree cover as does the general area around the site. These adjoining land uses, tree cover in the area, and the proposed monopole's relationship to the other tall utility structures in the transmission easement will serve to buffer, screen and mitigate views of the facility. The proposed use will be unmanned and will not generate vehicular traffic other than one or two visits per month by a technician for routine

maintenance. There will be no perceptible noise unless the backup generator is operating during testing or power outages. The proposed use is benign and will not generate light, dust, glare, vibrations, fumes or odors. In addition, there will be no interference from the proposed telecommunication use with electronic equipment for telephone, television, radio, or other electronic uses. The proposed telecommunications facility will not impact any environmentally sensitive areas as the subject property is not in a flood plain, Resource Protection Area, or Environmental Quality Corridor.

Alternate locations: The applicant states the overall area is characterized by non-residential institutional uses, office, commercial, medium density residential and three public uses; Rolling Valley West Park, Pohick Library, and the commuter parking lots on Old Keene Mill Rd. The Virginia Power Easement in which the monopole will be located contains large nearby structures rejected for co-location because they are already occupied by other carriers and would structurally fail. There are no existing tall buildings in the area for co-location of a telecommunications use. At the adjoining church site and nearby public uses the facility will be more visually prominent and solitary than when blended with the existing transmission structures as is being proposed.

DESCRIPTION OF SURROUNDING AREA

Adjacent and Nearby Land Uses:

- Subject property – developed with a Virginia Electric and Power Company substation and electrical transmission easement that crosses the substation property
- North – Commuter park and ride facility across Old Keene Mill Road and the Rolling Valley Mall shopping center.
- East – Congregation Adat Reyin synagogue and school, and townhouse residences.
- South – Single family residences and the Virginia Electric Easement
- West – Saint Andrews Episcopal Church and parking area and Rolling Valley West Park.

COMPREHENSIVE PLAN PROVISIONS

Comprehensive Plan Map: Subject property planned for Public Facilities

Planning Area, District, and Sector: Area III, Pohick Planning District, P2 – Main Branch Community Planning Sector

Land Use Recommendations:

Subject property – Plan Map: Public Facilities

- North – Retail and Other, and Public Facilities (Plan Map)
- East – Residential use at 5-8 and at 2-3 dwelling units per acre (du/ac) (Plan Map)
- South – Residential use at 2-3 dwelling units per acre (du/ac) (Plan Map)
- West – Public Parks and Residential use at 2-3 dwelling units per acre (du/ac) (Plan Map)

COMPREHENSIVE PLAN CITATIONS: An assessment of this proposal for substantial conformance with land use recommendations of the Comprehensive Plan (“the Plan”) is guided by the following citations from the Plan:

Area Plan:

Fairfax County Comprehensive Plan, 2013 Edition, Area III, Pohick Planning District, as amended through 10-20-2015, P2-Main Branch Community Planning Sector, pages 29-42:

Land Use

Figure 9 indicates the geographic location of land use recommendations for this sector. Where recommendations are not shown on the General Locator Map, it is so noted.

1. The entire P1 Planning Sector is located within the watershed of the Occoquan Reservoir. Protection of the Occoquan Reservoir water quality is the primary objective for this area. Almost all of the land in the sector is planned for residential uses within a density range of .1-.2 dwelling unit per acre. This conforms with findings in the Occoquan Basin Study and is commensurate with predominant densities and the well-established character of existing development in this sector. [Not shown]

2. Nonresidential uses requiring special exception or special permit approval should be rigorously reviewed. In general, these uses should be located at the boundary of Low Density Residential Areas and Suburban Neighborhoods or where their impact on existing residences is minimal. These uses should be granted only if the following conditions are met:

- Access for the use is oriented to an arterial;
- The use is of a size and scale that will not adversely impact the character of the area in which it is located; and
- The use is designed to mitigate impacts on the water quality of the Occoquan Reservoir.

[Not shown]

3. Agricultural and forestal uses are alternatives to residential uses in Low Density Residential Areas. Such uses, depending upon the techniques used, can have positive impacts on water quality. Careful attention should be paid to insure that agricultural and forestal techniques are supportive of water quality goals for the Occoquan Reservoir watershed. [Not shown]

4. The Conservation Plan for Lincoln-Lewis-Vannoy is included in the Plan by reference. The community is planned for .1-.2 dwelling unit per acre as shown on the Plan Map.

Policy Plan:

Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Public Facilities, as amended through 3-4-2014, Mobile and Land-Based Telecommunication Services, pages 37 – 40:

“Objective 42: In order to provide for the mobile and land-based telecommunication network for wireless telecommunication systems licensed by the Federal Communications Commission, and to achieve opportunities for the co-location of related facilities and the reduction or elimination of their visual impact, locate the network’s necessary support facilities which include any antennas, support structures and equipment buildings or equipment boxes in accordance with the following policies.

Policy a. Avoid the construction of new structures by locating proposed telecommunication facilities on available existing structures such as rooftops, telecommunication and broadcast support structures, electrical utility poles and towers, and water storage facilities when the telecommunication facilities

can be placed inconspicuously to blend with such existing structures. (See Figures 8, 9, 10.)

- Policy b. When existing structures are not available for co-location, or co-location is not appropriate because of adverse visual impacts or service needs, locate new structures that are required to support telecommunication antennas on properties that provide the greatest opportunity to conceal the telecommunication facilities and minimize their visual impact on surrounding areas.
- Policy c. When new structures or co-locations are required to serve residential neighborhoods, consider minimizing visual impacts on the surrounding area by utilizing camouflage structure design and/or micro-cell technologies or similar miniaturization technologies, such as distributed antenna systems (DAS), if feasible.
- Policy d. When multiple sites provide similar or equal opportunity to minimize impacts, public lands shall be the preferred location.
- Policy g. Co-locate mobile and land-based telecommunication facilities operated by different service providers on single sites and/or structures whenever appropriate. Locate single-use structures on a property only when a co-location structure for multiple service providers is not desirable or feasible due to technological differences, site limitations or visual impact concerns.
- Policy h. Ensure that the height of the proposed telecommunication facility is no greater than necessary to allow for co-location on the telecommunication facility based on its service area requirements while still mitigating the visual impact of the facility.
- Policy i. When new structures, co-locations and/or technologies (such as distributed antenna systems, micro-cell technology or miniaturization technology) are necessary to meet the service area requirements for the residential neighborhood(s), ensure that the height and mass of any appropriate co-location on the telecommunication facility is in character with the surrounding residential area and mitigates the visual impact of the facility on the surrounding residential area.
- Policy j. Design, site and/or landscape proposed telecommunication facilities to minimize impacts on the character of the property and surrounding areas. Demonstrate the appropriateness of the design through facility schematics and plans which detail the type, location, height, and material of the proposed structures and their relationship to other structures on the property and surrounding areas.
- Policy k. Demonstrate that the selected site for a new telecommunication facility provides the least visual impact on residential areas and the public way, as compared with alternate sites. Analyze the potential impacts from other vantage points in the area, especially from residential properties, to show how the selected site provides the best opportunity to minimize its visual impact on the area and on properties near the proposed site.
- Policy l. A key concept in assessing telecommunication facilities is mitigation which is defined as actions taken to reduce or eliminate negative visual impacts. Mitigate the visual impact of proposed telecommunication facilities and their equipment, by using effective design options appropriate to the site such as:

- Design, site and/or landscape the proposed facility to minimize impacts on the character of the area;
- Locate proposed telecommunication facilities near or within areas of mature vegetation and trees that effectively screen or provide an appropriate setting for the proposed structure provided such location does not adversely impact sensitive resources or cause fragmentation of forested communities. When viewed in context, consider perspective views, relative topography and other factors, to mitigate the visual presence and prominence of the structure;
- Blend proposed telecommunication facilities with an existing pattern of tall structures;
- Obscure or block the views of proposed telecommunication facilities with other existing structures, vegetation, tree cover, or topographic features to the maximum extent feasible; and
- Replace existing telecommunication facilities with taller structures or extend their overall height to reduce the need for another structure when such height increases or structure replacements are visually appropriate to the site, including the surrounding area and are consistent with the type, style and pattern of the existing structure.

Policy m. Locate proposed telecommunication facilities to ensure the protection of historically significant landscapes and cultural resources. The views of and vistas from architecturally and/or historically significant structures should not be impaired or diminished by the placement of telecommunication facilities.

Policy n. Site proposed telecommunication facilities to avoid areas of environmental sensitivity, such as steep slopes, floodplains, wetlands, environmental quality corridors, and resource protection areas.

Policy o. Site proposed telecommunication facilities to allow for future expansion and with corresponding levels of screening to accommodate expansion.

Policy p. Design and site proposed telecommunication facilities to preserve areas necessary for future right-of-way dedication and ancillary easements for construction of road improvements.

Policy q. Locate and construct antennas used for purposes other than mobile and land-based telecommunication services in accordance with the same guidelines established in this "Mobile and Land-Based Telecommunications Services" section.

Objective 43: **Design proposed telecommunication facilities to mitigate their visual presence and prominence, particularly when located in residential areas, by concealing their intended purpose in a way that is consistent with the character of the surrounding area. (See Figures 11 and 12.)**

Policy a. Disguise or camouflage the appearance of proposed telecommunication facilities to resemble other man-made structures and natural features (such as flagpoles, bell towers, and trees) that are typically found in a similar context and belong to the setting where placed.

Policy b. Design proposed telecommunication facilities that are disguised and camouflaged to be of a bulk, mass and height typical of and similar to the

feature selected.

- Policy c. Use other new and existing structures and vegetation of comparable form and style to establish a grouping that complements a camouflaged telecommunication facility and supports its design, location and appearance.”

STAFF ANALYSIS: See *Attachments B - E* for detailed discussion.

Fairfax County Department of Planning and Zoning

- Balloon Test *Attachment B*
A balloon test was held on December 5, 2015. Letters were sent to adjacent property owners notifying them of the test. Photographs of the balloon test from various locations are included as Attachment B.
- Zoning Administration Division – Ordinance Administration Branch *Attachment C*
Subject property is zoned R-1. Given the height of the proposed monopole, a steady red marker light is required pursuant to Par. 3.H. of Sect. 2-514 of the Zoning Ordinance, unless such is waived by the Zoning Administrator at the request of the applicant. Applicant has submitted the waiver. Otherwise, the proposed monopole meets Par. 3 of Sect. 2-514 of the Zoning Ordinance.
- Zoning Evaluation Division *Attachment D*
The proposed monopole facility, to be located within an existing Virginia Power easement, is subject to SP 4773 approved by the Board of Zoning Appeals to allow the electrical substation on the property. The special permit was not approved subject to a development condition limiting uses on the site to those depicted on a plat, as would be typical in a contemporary special permit approval. In this unique circumstance, an amendment to the existing special permit is not required to permit the proposed telecommunications. The proposed facility will not alter or impact the screening provided for the electrical substation use and is in substantial conformance with SP 4773.

Fairfax County Department of Public Works and Environmental Services

- Urban Forest Management Division *Attachment E*
All review comments have been adequately addressed.

CONFORMANCE WITH THE COMPREHENSIVE PLAN

Va. Code Sec. 15.2-2232, as amended, requires the Planning Commission to determine whether the general location or approximate location, character, and extent of the proposed facility, as amended, are substantially in accord with the adopted Comprehensive Plan.

Location

The property on which the proposed 130' tall monopole will be located is owned by a major public utility company, is used for electrical transmission and electrical substation purposes, and is associated with and part of a major utility easement that is greater than 90 feet in width. This meets the intent of the Comprehensive Plan guidelines to consider new monopoles to be located in major utility easements or rights-of-way.

Within the utility easement that runs through the property are two parallel rows of support structures (poles and lattice towers). Four existing electrical transmission support structures in this easement on adjoining properties are currently used to house telecommunication antennas of other wireless carriers. These towers cannot accommodate or structurally support additional wireless carriers. Other transmission support structures off site in the same easement either cannot support telecommunication antennas or do not meet coverage objectives of the applicant. Therefore, the applicant chose this site for the proposed 130' tall monopole as the monopole can still be located near these other tall transmission towers, one of which is 145' tall. This meets Comprehensive Plan objectives stipulating that when existing structures are not available for co-location, or co-location is not appropriate because of adverse service needs, new structures that are required to support telecommunications antennas be located on properties that provide the greatest opportunity to minimize the visual impact of telecommunications facilities.

Alternative sites were explored by the applicant in order to be consistent with the Comprehensive Plan guidelines recommending the placement of telecommunication facilities on existing structures or rooftops. There are no existing buildings in the surrounding area with sufficient height for co-location of a telecommunications use. The applicant states that the nearby sites with public uses such as the commuter parking lot or park offer no greater advantage for reducing visual impacts than the selected power line easement and substation site. If the proposed monopole were developed in another location, away from the existing tall transmission towers in the utility easement and without the tree cover of the selected site, the proposed monopole would be less obscured and more visible.

Character

The proposed site for the monopole and equipment compound is adjacent to the Virginia Power and Electric Company substation and within a major utility easement with several tall transmission towers. There is also substantial tree cover in the area. The subject property provides screening and context due to the public use and tall towers in the immediate area. This is consistent with Comprehensive Plan guidelines to minimize impacts on the character of the property and surrounding areas.

The proposed 130' monopole will be able to accommodate up to 5 carriers. The applicant will place twelve panel antennas at 130' in height on the monopole. Available space for four future carrier's antennas is located at 120, 110, 100 and 90 foot heights. The proposed monopole will be located within a 1,456 square foot equipment compound. The compound will contain an 8-foot 4-inch tall canopy over a concrete equipment slab covering the applicant's 3 cabinets and 1 generator. The compound will include space for future carriers and be screened by an 8 foot tall chain link fence. This meets the Comprehensive Plan guidelines of siting proposed telecommunication facilities to allow for future expansion.

Extent

A balloon test was held on December 5, 2015 flying a marker at the 130' height of the proposed monopole and a balloon at 143' height. The 143' height of the balloon represents a possible one-time future monopole height increase allowed by federal regulation. The proposed monopole will be approximately 13' lower than the balloon in the photos.

While visible from some locations, most views of the monopole from the surrounding properties will be mitigated by vegetation and distance. Vantage points and views of the structure will be

limited or obscured by the existing trees, especially during months of foliage. Even the residential properties closest to the monopole in the Westbury Oaks, Keene Mill Heights, Burke Chase, and Keene Mill Village subdivisions, would not have an entirely clear sight of the structure. The proposed monopole meets the Policy Plan objective of locating new structures near or within areas of mature vegetation and trees that provide an appropriate setting for minimizing the visual impact.

Overall, the Comprehensive Plan objectives are achieved for designing, siting, and/or landscaping mobile and land-based telecommunications facilities to minimize impacts on the character of the property and surrounding areas.

CONCLUSIONS AND RECOMMENDATIONS

Staff concludes that the subject proposal by Cellco Partnership d/b/a Verizon Wireless and Milestone Tower Limited Partnership III, to construct a 130' tall monopole telecommunication facility at the Keene Mill Substation, 9211 Old Keene Mill Road, Burke, VA 22015, satisfies the criteria of location, character, and extent as specified in Va. Code Sec 15.2-2232. Therefore, staff recommends that the Planning Commission find the subject Application 2232-S15-9, substantially in accord with provisions of the adopted Comprehensive Plan.

**2232 PUBLIC FACILITY REVIEW
(Telecommunications)**

**County of Fairfax, Virginia
Application for Determination
Pursuant to
Virginia Code Section 15.2-2232**

*** This area to be completed by staff ***

APPLICATION NUMBER 2232-S15-9

(Please Type or Clearly Print)

PART I: APPLICATION SUMMARY**LOCATION OF PROPOSED USE**

Address 9211 Old Keene Mill Road
City/Town Burke Zip Code 22015
Place Name (if at County facility) _____
Tax Map I.D. Number(s) 0882 01 0007
Fairfax County Supervisor District Springfield
Total Area of Subject Parcel(s) 3.9 Acres
Zoning District Residential R-1

APPLICANT(S)

Name (Company or Agency) Cellco Partnership d/b/a Verizon Wireless and Milestone Tower Limited Partnership III
Agent Name Frank W. Stearns
(Note: Failure to notify County of a change in agent may result in application processing delays)
Agent's Mailing Address 201 Liberty Street, SW
City/Town Leesburg State VA Zip Code 20175
Telephone Number (703) 726-2547 Fax (703) 737-3793
E-mail fwstearns@donohuestearns.com
Secondary Contact (Must Be Provided) Cris Hernandez, Milestone
Telephone Number (703) 364-5604 E-mail cris@milestone.com

PROPERTY OWNER(s) OF RECORDOwner Virginia Electric and Power Company, c/o Blaine GarrettStreet Address PO Box 27007, 12th Floor, Dominion Resources Inc.City/Town Richmond State VA Zip Code 23261Has property owner been contacted about this proposed use? Yes ☒ No ☐**BRIEF DESCRIPTION OF PROPOSED USE**

Construction of a telecommunications structure with up to twelve antenna and an overall height of 130 feet with an associated fenced equipment compound, The monopole and compound are designed to accommodate up to 5 providers and will be located in a Virginia Power electrical transmission easement on property with an Virginia Power electrical substation use.

PRIOR 2232 REVIEW APPROVALS

Provide previous 2232, "Feature Shown" (FS) or 456 approvals

None

PRIOR ZONING APPROVALS

Provide previous Zoning Approvals for all uses on site such as proffered conditions, special permits, special exceptions, variances, or development plans.

BZA Approval for electrical substation on December 8, 1959, no application number

SIGNATURE

The undersigned acknowledges that additional Fairfax County land use review requirements may be identified during the review of this 2232 Review application and the fulfillment of such requirements is the responsibility of the applicant. The undersigned also acknowledges that all Fairfax County Zoning Ordinance requirements pertaining to this project shall be fulfilled.

In the event a new agent is assigned responsibility for this application, the applicant agrees to provide a letter to the Department of Planning and Zoning authorizing the transfer of responsibility for the application and providing all new contact information. In the event the applicant fails to notify County staff of a change in agent, the application may be subject to processing delays.

Signature of Applicant or Agent



Date

**Submit completed application to:**

**Chris Caperton, Chief, Facilities Planning Branch
Fairfax County Department of Planning and Zoning
12055 Government Center Parkway, Suite 730
Fairfax, Virginia 22035-5507
(703) 324-1380**

PART II: TELECOMMUNICATION USES
(Do not submit for non-telecommunications public facility uses)

A. TYPE OF PROPOSED FACILITY Check the appropriate box(es) and provide the required information

	Yes	No
New monopole* or tower	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Collocation on existing monopole or tower	<input type="checkbox"/>	<input type="checkbox"/>
Collocation on building facade or rooftop	<input type="checkbox"/>	<input type="checkbox"/>
Collocation on replacement light pole or utility pole	<input type="checkbox"/>	<input type="checkbox"/>
Located in utility or transportation easement and/or right-of-way	<input type="checkbox"/>	<input type="checkbox"/>
Modification to approved telecommunications facility	<input type="checkbox"/>	<input type="checkbox"/>
Collocation on other structure _____	<input type="checkbox"/>	<input type="checkbox"/>

**Including treepoles, flagpoles and other freestanding stealth structures.*

B. EXISTING ANTENNAS(S) TO BE REMOVED AND/OR TO REMAIN Provide a separate page for each provider listed as part of the application

Provider _____

Model # or name	Type Panel, Dish, Omni	QTY	Height/ Diameter	Width/ Diameter	Remove or Remain	Location height on the structure

C. NEW ANTENNA(S) Provide a separate page for each provider listed as part of the application

Model # or name	Type Panel, Dish, Omni	QTY	Height	Width	Diameter	Location height on the structure
LNX-6515DS-A1M	Panel	6	96.6"	11.9"	NA	130' agl
HBXX-6516DS-A2M	Panel	6	50.9"	12"	NA	130' agl

Existing structure color: New structure - galvanized steel Antenna color: light gray

Is antenna painted to match existing structure? Yes ☐ No ☒

If No, please explain: Antennas will be on new structure

Will the antennas be screened? Yes ☐ No ☒

If Yes, describe the screening to be provided: _____

Will the antennas be flush-mounted to the structure on which they are located? Yes ☐ No ☒

If No, please explain: Antennas to be mounted to platform at top of monopole

Additional information:

D. EXISTING EQUIPMENT TO BE REMOVED AND/OR TO REMAIN

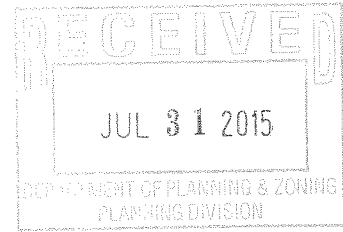
Model # or name	Type Cabinet, shelter, telco or generator	QTY	Height	Width	Depth	Location	Remove or Remain

E. NEW EQUIPMENT

Model # or name	Type Cabinet, shelter, telco or generator	QTY	Height	Width	Depth	Location
Charles Cabinet	Cabinet	1	6' 2"	2' 8"	2' 9"	In compound on slab
Charles Battery	Cabinet	1	6' 1"	2' 8"	2' 8"	In compound on slab
Back-up Generator	Polar DC Generator	1	71.84"	32.7"	49.16"	In compound
Mesa Span XL	Telco Cabinet	1	46.2"	36.4"	39.4"	In compound

Describe how the equipment cabinet or shelter will be screened, including material, color (and, as applicable, fence height).

Screened by an 8' tall chain link fence and vegetation on property edge



**Application for Determination
Pursuant to
Section 15.2-2232, Code of Virginia**

Part II: Statement of Justification

Applicants:

Cellco Partnership d/b/a Verizon Wireless
9000 Junction Drive
Annapolis Junction, Maryland 20701

Milestone Tower Limited Partnership III
12110 Sunset Hills Road, Suite 100
Reston, Virginia 20190

Site Location

Keene Mill Substation
9211 Old Keene Mill Road
Burke, Virginia 22015
Parcel Number: 0882 01 0007
Zoning District: Residential R-1
Planned Use: Public Facilities, Governmental and Institutional (Public Utility)
Supervisor District: Springfield

Description of Proposed Use

Pursuant to Section 15.2-2232 of the Code of Virginia, Cellco Partnership d/b/a Verizon Wireless ("Verizon Wireless") and Milestone Tower Limited Partnership III ("Applicant") respectively requests that a proposed 130 feet tall telecommunications monopole structure with a supporting equipment compound be approved in a major electrical utility easement on property of the Keene Mill Virginia Dominion Power Electrical Substation, 9211 Old Keene Mill Road, Burke, Virginia 22015 in the Springfield Supervisor District.

The Property consists of 3.90 acres, is zoned R-1 (Residential at 1 dwelling unit per acre), and is planned at for Public Facilities Governmental and Institutional Use. It is owned by the Virginia Electric and Power Company ("Owner") and is approximately 1,300 feet east of the intersection of Old Keene Mill Road and Sydenstricker Road. A major Dominion Virginia Power transmission easement with two parallel rows of support structures (poles and lattice towers) runs through the eastern third of the property from northeast to southwest. Four existing electrical transmission support structures in this easement on adjoining properties are currently used to house and support telecommunication antennas of other wireless carriers. These towers cannot accommodate or support additional wireless carriers and other transmission support structures off site in the same easement either cannot support telecommunication antennas or do not meet the coverage objectives of Verizon Wireless. The proposed monopole structure will be located in the northeast quadrant of the property, within the existing utility easement that runs through the property, and outside of the fenced substation area. The monopole will be approximately 75 feet south of an access roadway, Route 6475, which defines the property's northern edge.

As per Section 2-514, part 3A (2), of the Fairfax County Zoning Ordinance, “monopoles, with related unmanned equipment cabinets and/or structures” are a permitted use (subject to Paragraphs 3B through 3K) “in any zoning district in a utility transmission easement which is ninety (90) feet or more in width.” Paragraph 3F of this Section provides that the structure and all equipment “shall be located a minimum of twenty (20) feet from the utility easement.” As stated in the Statement of Justification, the telecommunications use will be constructed in a major electrical transmission easement greater than 90 feet in width and with all structures and equipment a minimum of 20 feet from the utility easement.

The proposed telecommunications facility is designed for up to a total of five telecommunications carriers, including the co-applicant, Verizon Wireless. A detailed description of the telecommunications facility is provided on the Site Plan entitled “Keene Mill Substation” prepared by Entrex Communication Services, dated July 6, 2015 with modifications through July 28, 2015 and included as part of this application. Verizon Wireless will have 12 panel antennas at a rad center of 130 feet above ground level. Space for the antennas of four future carriers is available at rad centers of 120 feet, 110 feet, 100 feet and 90 feet above ground level. A 6 feet lightning rod will be located at the top of the pole. The types and sizes of the Verizon Wireless’ antennas are detailed on Page 6 of the application forms and on the engineering drawings, Sheet Z-8, “Antenna Layout, Section, Details and Schedule”. An elevation of the monopole showing the location of Verizon Wireless’ antenna platform, the antenna platforms of the other future carriers, and the lightning rod is shown on Sheet Z-4, “Monopole Elevation.”

At the base of the proposed monopole will be an equipment compound area measuring 52 feet by 28 feet. An eight (8) foot high chain link fence with a one foot section of barbed wire at the top will enclose the compound area. The compound area will contain the monopole base, all equipment of Verizon Wireless and of all future carriers. The Verizon Wireless equipment cabinets and a backup generator will be located on a 12 feet by 20 feet concrete pad under an 8’ 4” tall canopy with metal roof. Verizon Wireless will also locate a mesa cabinet in the compound area. Access to the compound area will be from a gravel access driveway off an existing gravel driveway that is entered from Old Keene Mill Road and leads to the substation use. Full details of the compound area are detailed on the Zoning Drawings, Sheet Z-3, entitled “Compound Plan”. The dimensions of Verizon Wireless’ cabinets and generator are detailed on Sheet Z-10, “Equipment and Generator Details” and can also be found on page 7 of the 2232 Review application forms. The canopy details are provided on Sheet Z-11, “Equipment Plans and Canopy Elevations.”

The proposed equipment structure and equipment cabinets will be unmanned and will operate around the clock 365 days per year. Routine maintenance occurs approximately once or twice a month as performed by a service technician driving a standard size vehicle to the site. There are no customers, employees or other personnel at the site except at the time of the routine maintenance.

The facility will operate as a cellular base station in the wireless telecommunications networks of Verizon Wireless and up to four additional providers. The proposed use is benign and will not generate light, dust, glare, vibrations, fumes or odors. Minimum noise will be

generated when the back-up generator is tested or there is an outage. The traffic generated by the facility will be minimal. The proposed use does not present a threat to the public health, safety or welfare and will not impact radio, television or telephone reception. It will have no negative impact upon the air and water quality, nor will it impact any existing environmental features on the subject property.

Requirement of Proposed Use

The proposed site will provide and improve wireless coverage along and around Old Keene Mill and Sydenstricker Roads and greatly enhance service for customers using the nearby park and ride facility, shopping and business centers, library and park. In addition, it will enhance in-building coverage to the homes of residents in an area that currently have poor LTE coverage.

Attached to the application are Verizon Wireless' propagation maps showing both the existing network coverage provided by other existing Verizon Wireless sites in the area and the improvement in coverage provided by the proposed a facility at the proposed Old Keene Mill site. The map labeled "Keene Mill Heights Only Neighbors" shows the coverage from the existing Verizon Wireless sites in the area. The existing sites include "Burke Fire", a monopole at the Burke Fire Station off Burke Lake Road, and "Homewood", an electrical transmission tower collocation between Eastbourne Drive and the Southern Railroad, both to the north; "Rolling Valley", a tower at the Springfield Government Center site on Rolling Road to the east; "Barkers Crossroads", a monopole off Elton Drive to the southeast; and "Pohick", an electrical transmission tower collocation near Sangster Elementary School and Retriever Road to the south. The maps labelled "Keene Mill Heights with Neighbors at 130 Ft." and "Keene Mill Heights with Neighbors at 90 Ft." show the existing sites in the area and the projected coverage provided by the proposed sites at alternative heights of 130 feet (proposed) and 90 feet.

The applicant identified existing structures of sufficient height in the area. However, each of the existing Dominion Virginia Power (DVP) transmission towers that were of sufficient height and structurally capable were already occupied by other carriers. By adding Verizon Wireless equipment, these transmission towers would structurally fail.

The proposed structure will resolve the need for adequate coverage in the area surrounding the proposed site and ensure adequate overlapping coverage between and among existing Verizon Wireless sites. Ultimately the proposed site will allow residents and commuters to experience better quality and diminished dropped calls. The construction of a telecommunications monopole facility at this location will serve additional carriers and is suitable to the site, its setting, and the nature of the existing public use on the property.

Anticipated Impacts on Adjoining Properties

The monopole structure will be located in a major electrical transmission easement in the northeast portion of the existing 3.90 acre public utility site owned by Virginia Electric and Power Company. The existing electrical substation compound is located on the southern half of the property and the transmission corridor with two lines of tall transmission structures approximately 100 feet in height traverses across the eastern half of the property from north to south.

To the immediate east of the property is the Congregation Adat Reyin synagogue and school and to the southeast is the Westbury Oaks residential community off of Westbury Oaks Court and Keene Drive. This community is zoned and developed at PDH-4. To the immediate west, properties are owned and developed by the Saint Andrews Episcopal Church and contain the church building and an associated house. These properties are zoned R-1. Property to the immediate south is also owned by the Saint Andrews Episcopal Church and is developed with a parking area serving the church and the utility transmission easement that crosses the substation property. Further south across Syndenstricker Road are the Burke Chase and Indian Oaks single family residential subdivisions zoned R-3 and to the southwest is the Rolling Valley West Park owned by the Fairfax County Park Authority. To the north across Old Keene Mill Road are two parcels used for commuter parking and zoned R-2. One parcel is owned by the State of Virginia and the other is owned by the Fairfax County Board of Supervisors. Further to the north is the Rolling Valley Mall, zoned C-6 and a multi-family residential area zoned and developed R-20. To the northwest is the Keene Mill Village Subdivision zoned and developed at R-5.

The proposed monopole will be located in an area that is surrounded by non-residential uses that include the church and synagogue properties and the commuter park and ride facility across Old Keene Mill Road. The border of the property has significant tree cover as does the general area around the site. The closest residential property is 457 feet to the south east and is separated by a wooded area. These nature of adjoining land uses, the tree cover in the area, and the proposed monopole's relationship to the other tall utility structure in the transmission easement will serve to buffer, screen and mitigate views of the facility. The proposed use will have no impact on traffic as it will be unmanned and will not generate vehicular traffic other than one or two visits per month by a technician for routine maintenance. The technician uses a standard vehicle and will have access to the facility by an access drive into the compound off the existing access drive to the existing substation use. There will be no perceptible noise generated by the facility unless the backup generator is operating during testing or power outages. In addition, there will be no interference from the proposed telecommunication use with electronic equipment for telephone, television, radio or other electronic uses.

Alternative Sites Considered for the Proposal

The proposed monopole structure will be located to fill an existing service void and address capacity issues. The overall area is characterized by non-residential institutional uses, office, commercial, medium density residential uses and three public use, Rolling Valley West Park, Pohick Library and the commuter parking lots on Old Keene Mill Road. The Virginia Power Easement in which the monopole will be located contains several large nearby structures rejected for collocation. There are no existing tall buildings in the area for collocation of a telecommunication use. The adjoining church site and the nearby public sites use for park, library and commuter parking lot uses offer no greater advantage for reducing visual impacts than the selected power line easement and substation site. Further at these other locations the facility will be more visually prominent and solitary than when blended with the existing transmission structures as is being proposed.

The selected public utility electrical substation is already impacted by industrial type development and is removed from other uses. It is a well-buffered site that provides the opportunity to visually mix the new monopole structure with other existing tall tower and poles used for the transmission of electrical power, reducing its prominence and visual presence.

Relationship of the Proposed Facility to the Comprehensive Plan

Mobile and Land-Based Telecommunication Services provide for the wireless transmission of voice and data and include cellular and personal communications services (PCS), paging and wireless internet services and mobile radio. These services operate from wireless networks that are dependent on antenna devices and related equipment to transmit from a sender to one or more receivers. Such services are viewed as a public necessity that benefits the community and its economic growth and vitality.

The property is located in the Pohick Planning District, Main Branch Community Planning Sector (P2), Planning Area III. The Comprehensive Plan Map shows the property planned for Public Facilities, Governmental and Institutional Use, with a "U" designation for "Public Utility" use. On Figure 6, "Existing Public Facilities", page 16 of the "Overview: Pohick Planning District", the "Va. Power Burke, Keene Mill and Sideburn Substations" are identified in Sector P2 under the "Public Utilities" Column.

The property contains an electrical substation use, a major transmission corridor with parallel rows of electrical transmission towers and poles. Four existing telecommunication carriers are located on transmission structures located on immediately adjacent properties to both the north and south. The new proposed structure will blend with the existing uses on the site and those within the transmission corridor to both the north and south, will be screened from residential uses, and will accommodate multiple carriers. The proposed facility is consistent with the stated Objectives of the Policy Plan of the Fairfax County Comprehensive Plan concerning Mobile and Land-Based Telecommunication Services, "General Guidelines", as described in the following:

General Guidelines

Objective 42: In order to provide for the mobile and land-based telecommunication network for wireless telecommunication systems licensed by the Federal Communications Commission, and to achieve opportunities for the collocation of related facilities and the reduction or elimination of their visual impact, locate the network's necessary support facilities which include antennas, support structures and equipment buildings or equipment boxes in accordance with the following policies.

Policy a. Avoid the construction of new structures by locating proposed telecommunication facilities on available existing structures such as rooftops, telecommunication and broadcast support structures, electrical utility poles and towers, and water storage facilities when the telecommunication facilities can be placed inconspicuously to blend with such existing structures. (See Figures 8, 9, 10.)

Applicants' Response: There are no existing available structures in the vicinity of the property that can structurally accommodate the proposed telecommunications use. The applicant explored the use of existing Virginia Power transmission towers in the transmission easement that crosses the property but these structures are either already being utilized for the collocation of telecommunication facilities or were rejected for collocation due to structural issues. Construction of a new structure on property that is currently used for public utility uses and is the location of a major electrical transmission easement with tall towers and poles, is a low impact option for responding to the growing need in the area.

Policy b. When existing structures are not available for co-location, or co-location is not appropriate because of adverse visual impacts or service needs, locate new structures that are required to support telecommunication antennas on properties that provide the greatest opportunity to conceal the telecommunication facilities and minimize their visual impact on surrounding areas.

Applicants' Response: The proposed monopole and compound will be located on property developed with an electrical power substation and an existing major utility transmission corridor. The proposed monopole will be compatible and visually blend with the existing tall electrical transmission structures on the property and in the area that are approximately 100 feet in overall height and will have minimal visual impact on surrounding areas. In addition, the property adjoins other non-residential properties including two places of worship, a public park, commuter parking lots, and a large shopping center will serve to buffer and screen the proposed use from residential areas.

Policy c. When new structures or co-locations are required to serve residential neighborhoods, consider minimizing visual impacts on the surrounding area by utilizing camouflage structure design and/or micro-cell technologies or similar miniaturization technologies, such as distributed antenna systems (DAS), if feasible.

Applicants' Response: The proposed structure will not have a camouflaged design but will be located in a major electrical utility corridor and located amongst tall poles and towers used to support power transmission. As such it will visually blend with these structures when viewed from surrounding areas and vantage points. In addition, much of the site and adjoining properties are wooded and the trees in these areas will serve to mitigate views of the structure. The property abuts non-residential uses to the west, northwest, north and south/southwest, and there is a significant woodland area between the property and a residential townhouse development to the east/southeast. A non-residential use also occupies land to the immediate northeast of the property.

Policy d. When multiple sites provide similar or equal opportunity to minimize impacts, public lands shall be the preferred location.

Applicants Response: While there is a vacant publicly owned property just to the north of the site and other public lands cross Old Keene Mill Road used for commuter parking, as well as a public park and library site located to the southwest across Sydenstricker Road, these sites provide no greater advantage than the selected site for reducing visual impacts and a monopole on

any of these public locations would appear more prominent than on the selected site or be located closer to residential areas or public streets.

Policy e. Locate mobile and land-based telecommunication facilities on public property only after a lease agreement between the County, or related board or authority, and the service provider has been established.

Applicants Response: The structure will not be located on a public use site.

Policy f. Ensure that the use of public property by mobile and land-based telecommunication facilities does not interfere with the existing or planned operational requirements of the public use and complies with adopted policies and plans to protect natural resources.

Applicants Response: The proposed structure will not be located on a public use site.

Policy g. Co-locate mobile and land-based telecommunication facilities operated by different service providers on single sites and/or structures whenever appropriate. Locate single-use structures on a property only when a co-location structure for multiple service providers is not desirable or feasible due to technological differences, site limitations or visual impact concerns.

Applicants' Response: The proposed 130 feet tall monopole will accommodate up to a total of five telecommunication providers, including the co-applicant Verizon Wireless. Verizon Wireless will be located with a rad center of 130 feet above ground level and space is available for four future carriers at 120, 110, 100 and 90 feet above ground level.

Policy h. Ensure that the height of the proposed telecommunication facility is no greater than necessary to allow for co-location on the telecommunication facility based on its service area requirements while still mitigating the visual impact of the facility.

Applicants' Response: The 130 feet height of the proposed monopole is the minimum height necessary to meet Verizon Wireless' coverage objectives for this area of Fairfax County and to accommodate up to four additional telecommunication carriers. The height is consistent with adjacent utility transmission structures and will not have a visual impact on surrounding areas.

Policy i. When new structures, co-locations and/or technologies (such as distributed antenna systems, micro-cell technology or miniaturization technology) are necessary to meet the service area requirements for the residential neighborhood(s), ensure that the height and mass of any appropriate co-location on the telecommunication facility is in character with the surrounding residential area and mitigates the visual impact of the facility on the surrounding residential area.

Applicants' Response: The height and character of the proposed structure is consistent with the numerous other large poles and towers that cross the subject property and run in a major transmission easement from southwest to northeast. Several of these towers to both the north and south are have antenna collocations for other telecommunication providers with the antennas

positioned approximately 122 feet above ground level. The location of the new monopole is removed from residential areas and separated by non-residential uses and tree cover.

Policy j. Design, site and/or landscape proposed telecommunication facilities to minimize impacts on the character of the property and surrounding areas. Demonstrate the appropriateness of the design through facility schematics and plans which detail the type, location, height, and material of the proposed structures and their relationship to other structures on the property and surrounding areas.

Applicants' Response: The 130 feet tall monopole is of similar height, mass and relative extent as the nearby approximately 100 feet tall poles and lattice towers used to support the 2 major power transmission lines that cross the property. In addition, electrical transmission poles to both the north and south of the selected site are equipped with telecommunication antennas at the top and are of a similar appearance as the proposed structure. The proposed monopole is consistent with the public utility use of the electrical substation site and is situated in the transmission corridor. The new structure will be in context with its immediate surroundings and will be distant from most residential structures. Given the existing tall vertical structures that are already located on the property and in the immediate area, the additional pole of similar height should not be conspicuous or prominent. The appropriateness of the design and site and elevation of the structure is provided on Zoning Drawing sheets Z-4 and Z-5 and demonstrated by the photo-simulations of the structure included in the application package taken from 12 vantage points throughout the area.

Policy k. Demonstrate that the selected site for a new telecommunication facility provides the least visual impact on residential areas and the public way, as compared with alternate sites. Analyze the potential impacts from other vantage points in the area, especially from residential properties, to show how the selected site provides the best opportunity to minimize its visual impact on the area and on properties near the proposed site.

Applicants' Response: The selected site is located on a public utility sub-station property and in a major electrical transmission corridor over 90 feet in width. The site is surrounded on most sides by non-residential uses including two places of worship and publicly owned property used primarily for commuter park and ride facilities. The most immediate residential properties are to the south/southwest and the east/southeast and are separated by distance and wooded areas. To a large degree, the new monopole structure will not be conspicuous or prominent from any residential area as the only views will be through and beyond other existing transmission structures of a similar height and scale. The site's relationship to an existing pattern of large electrical transmission structures and public utility, as well as its proximity to non-residential and public uses and wooded areas, will mitigate visual impacts and provide visual context. Other properties in the search area used for non-residential purposes provide no greater opportunity for concealment or visual mitigation. The photo-simulations included in the application package demonstrate the appropriateness of the design and any visual impacts on surrounding areas.

Policy l. A key concept in assessing telecommunication facilities is mitigation which is defined as actions taken to reduce or eliminate negative visual impacts. Mitigate the visual impact of proposed telecommunication facilities and their equipment, by using effective design options appropriate to the site such as:

- **Design, site and/or landscape the proposed facility to minimize impacts on the character of the area;**
- **Locate proposed telecommunication facilities near or within areas of mature vegetation and trees that effectively screen or provide an appropriate setting for the proposed structure provided such location does not adversely impact sensitive resources or cause fragmentation of forested communities. When viewed in context, consider perspective views, relative topography and other factors, to mitigate the visual presence and prominence of the structure;**
- **Blend proposed telecommunication facilities with an existing pattern of tall structures;**
- **Obscure or block the views of proposed telecommunication facilities with other existing structures, vegetation, tree cover, or topographic features to the maximum extent feasible; and**
- **Replace existing telecommunication facilities with taller structures or extend their overall height to reduce the need for another structure when such height increases or structure replacements are visually appropriate to the site, including the surrounding area and are consistent with the type, style and pattern of the existing structure.**

Applicants' Response: The structure is located within a major electrical transmission easement and on property with an electrical substation use. The proposed facility will blend with an existing pattern of tall structures consisting of both poles and towers, which are located in the easement to support the electrical power lines. To a certain extent these existing tall structures also will obscure or block the view of the new monopole from many vantage points. The relationship of other non-residential uses in the surrounding area, vegetation and tree cover in the surrounding area and the distance between the structure and most residential areas also will serve to mitigate views.

***Policy m.* Locate proposed telecommunication facilities to ensure the protection of historically significant landscapes and cultural resources. The views of and vistas from architecturally and/or historically significant structures should not be impaired or diminished by the placement of telecommunication facilities.**

Applicants' Response: The proposed facility will not adversely impact historically significant landscapes and cultural resources nor impair or diminish views and vistas from such resources.

***Policy n.* Site proposed telecommunication facilities to avoid areas of environmental sensitivity, such as steep slopes, floodplains, wetlands, environmental quality corridors, and resource protection areas.**

Applicants' Response: The facility will avoid areas of environmental sensitivity.

***Policy o.* Site proposed telecommunication facilities to allow for future expansion and with corresponding levels of screening to accommodate expansion.**

Applicants' Response: Both the monopole and equipment compound area will be designed to accommodate up to a total of five telecommunication providers while maintaining current levels of screening on the property. The compound area will be enclosed by an 8 feet tall chain link fence with a 1 foot band of barbed wire at the top.

Policy p. Design and site proposed telecommunication facilities to preserve areas necessary for future right-of-way dedication and ancillary easements for construction of road improvements.

Applicants' Response: The location of the facility will not impede on any areas necessary for future right-of-way or road improvements

Policy q. Locate and construct antennas used for purposes other than mobile and land-based telecommunication services in accordance with the same guidelines established in this "Mobile and Land-Based Telecommunications Services" section.

Applicants' Response: The proposed facility is for mobile and land based purposes.

Objective 43: Design proposed telecommunication facilities to mitigate their visual presence and prominence, particularly when located in residential areas, by concealing their intended purpose in a way that is consistent with the character of the surrounding area. (See Figures 11 and 12.)

Policy a. Disguise or camouflage the appearance of proposed telecommunication facilities to resemble other man-made structures and natural features (such as flagpoles, bell towers, and trees) that are typically found in a similar context and belong to the setting where placed.

Applicants' Response: The proposed monopole structure will not be of a camouflaged design but will be consistent and in context with the other tall structures in the electrical transmission easement that runs through the substation property.

Policy b. Design proposed telecommunication facilities that are disguised and camouflaged to be of a bulk, mass and height typical of and similar to the feature selected.

Applicants' Response: The proposed 130 feet tall structure will be of a mass and height similar to the other large steel towers and poles with an overall height ranging from approximately 100 to 122 feet used for electric transmission and telecommunication purposes located in the power line corridor. The proposed structure will be of a similar appearance as other electrical power poles to the north and south used for wireless telecommunication collocation.

Policy c. Use other new and existing structures and vegetation of comparable form and style to establish a grouping that complements a camouflaged telecommunication facility and supports its design, location and appearance.

Applicants' Response: The design and height of the 130 feet tall monopole is of comparable form and style as the towers and poles in the electrical transmission corridor that are

approximately 100 feet tall. Four of these nearby transmission poles are also used to collocate existing telecommunication antennas with the antennas extended to a level of approximately 122 feet above the ground. The new structure will visually blend and be consistent with the other existing towers and poles in the immediate area.

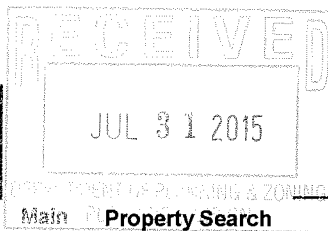
Conclusions

In light of the foregoing and the reasons stated, Verizon Wireless and Milestone Tower Limited Partnership III, hereby submit that this proposal is in compliance with the Fairfax County Comprehensive Plan and respectfully requests that the 2232 Review Application be approved.

A handwritten signature in dark ink, reading "Frank W. Stearns", is written over a solid horizontal line.

Frank W. Stearns
Donohue and Stearns, PLC
Agent for Applicant

[illegible]

**Address Map Number****MAP #: 0882 01 0007
ELECTRIC AND POWER****9211 OLD KEENE MILL RD**

CURRENT RECORD

1 of 1

[Return to Search Results](#)**Owner**

Name	ELECTRIC AND POWER, CO VIRGINIA
Mailing Address	PO BOX 27007 FLR 12TH DOMINION RESOURCES INC C/O BLAINE GARRETT RICHMOND VA 23261
Book	01841
Page	0161

[Neighborhood Sales](#) [Printable Summary](#)**Parcel**

Property Location	9211 OLD KEENE MILL RD
Map #	0882 01 0007
Tax District	80000
District Name	SPRINGFIELD
Land Use Code	Electric,transmission ROW,plants,substat
Land Area (acreage)	3.9035
Land Area (SQFT)	
Zoning Description	R-1(Residential 1 DU/AC)
Utilities	WATER NOT AVAILABLE SEWER NOT AVAILABLE GAS NOT AVAILABLE

[Definition of Terms](#)

County Historic Overlay District	NO For further information about Historic Overlay Districts, CLICK HERE
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Street/Road	PAVED
Site Description	BUILDABLE-AVERAGE LOT

Legal Description

Legal Description	BURKE ASSESSED BY STATE CORP COMM
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Last Refresh

Date

Data last refreshed: 21/Jan/2014 DB:P14PYR

General Information**Need Help?**

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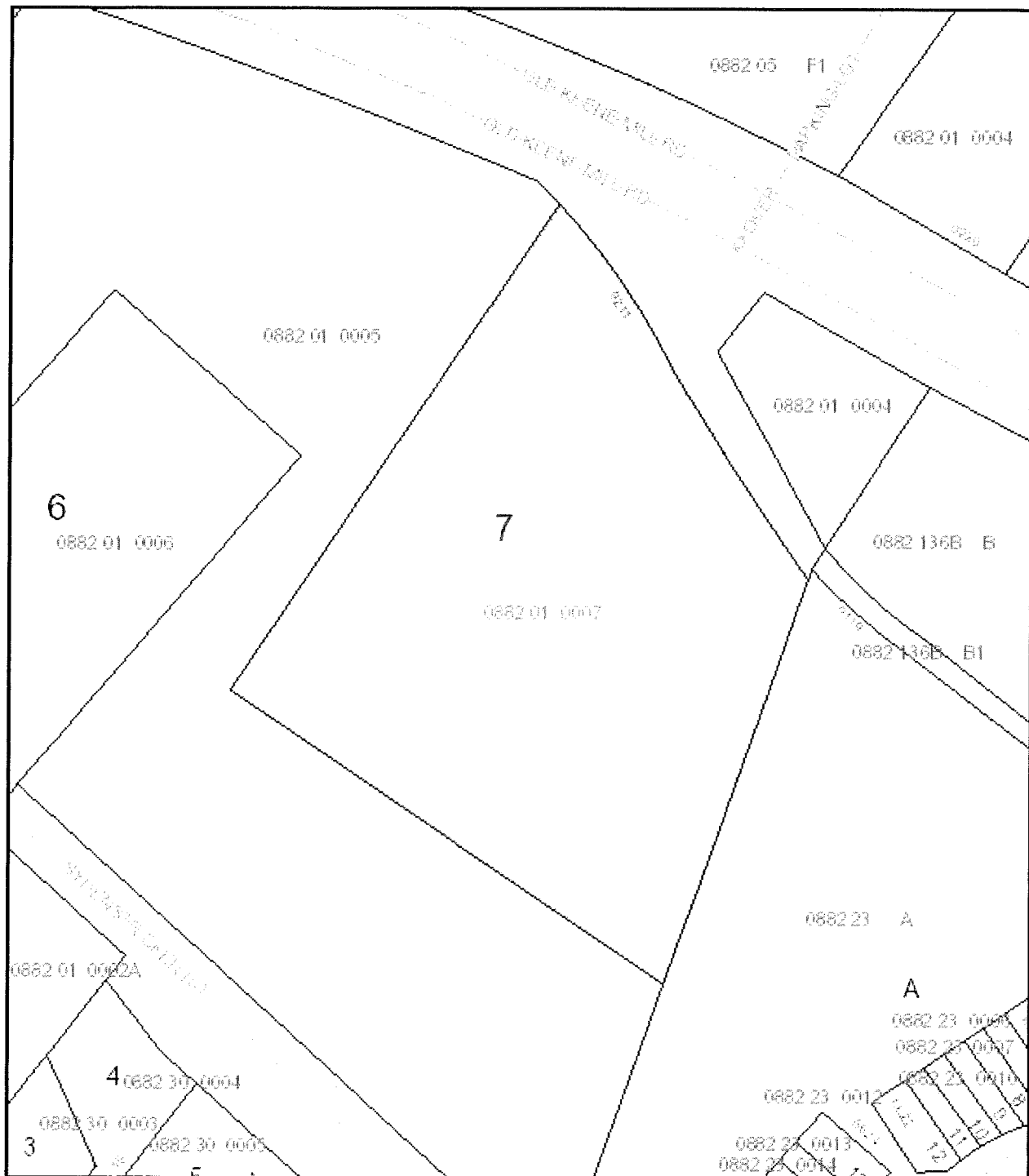
If you believe any data provided is inaccurate or if you have any comments about this site, we would like to hear from you. Owner names will be withheld from the Internet record upon request. Comments or requests may be made via e-mail to the Real Estate Division at [Real Estate Division](#) or by phone at (703) 222-8234.

While Fairfax County has attempted to ensure that the data contained in this file is accurate

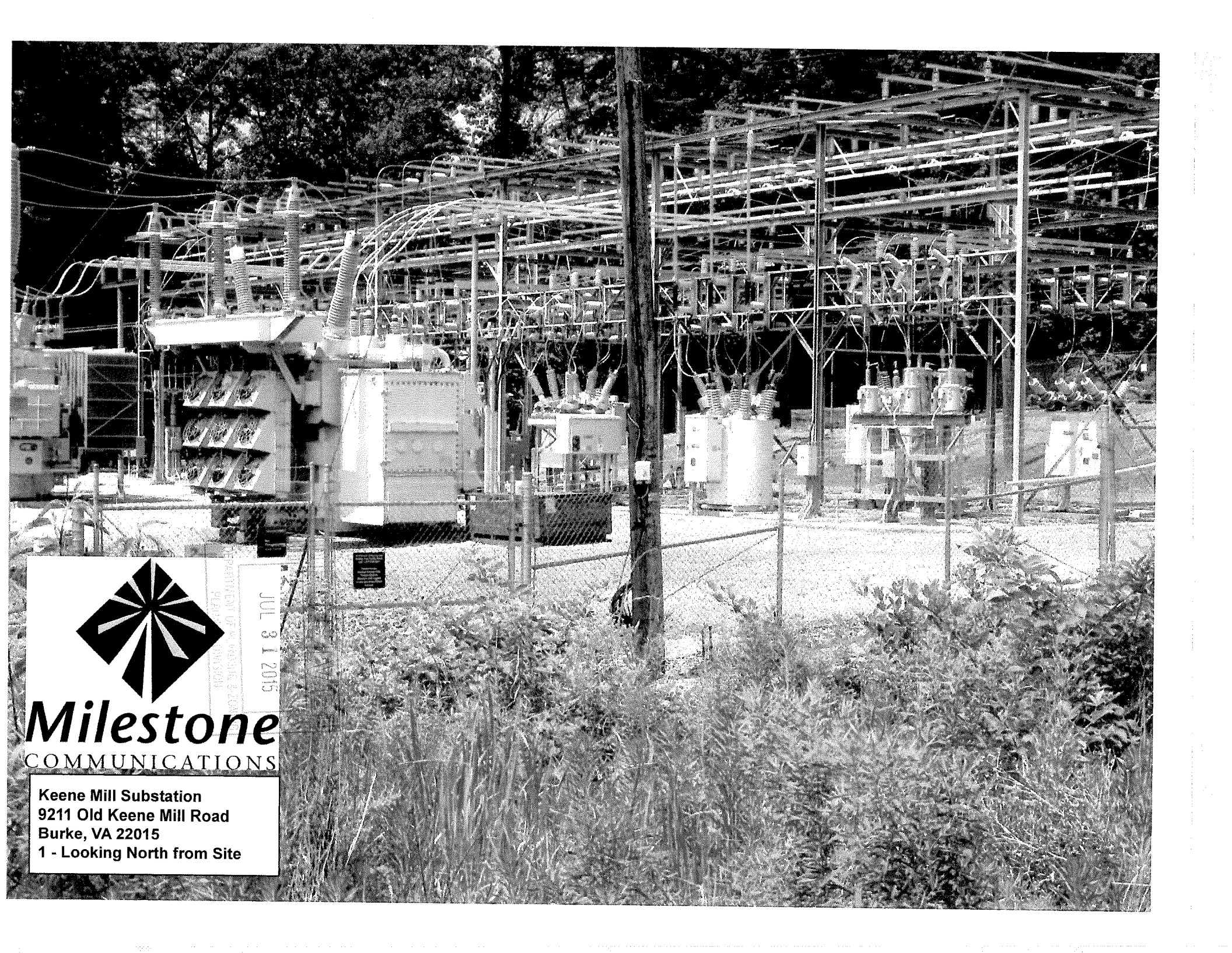
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- Sales
- Values
- Residential
- Commercial
- Map
- Structure Size

MAP #: 0882 01 0007
ELECTRIC AND POWER

9211 OLD KEENE MILL RD



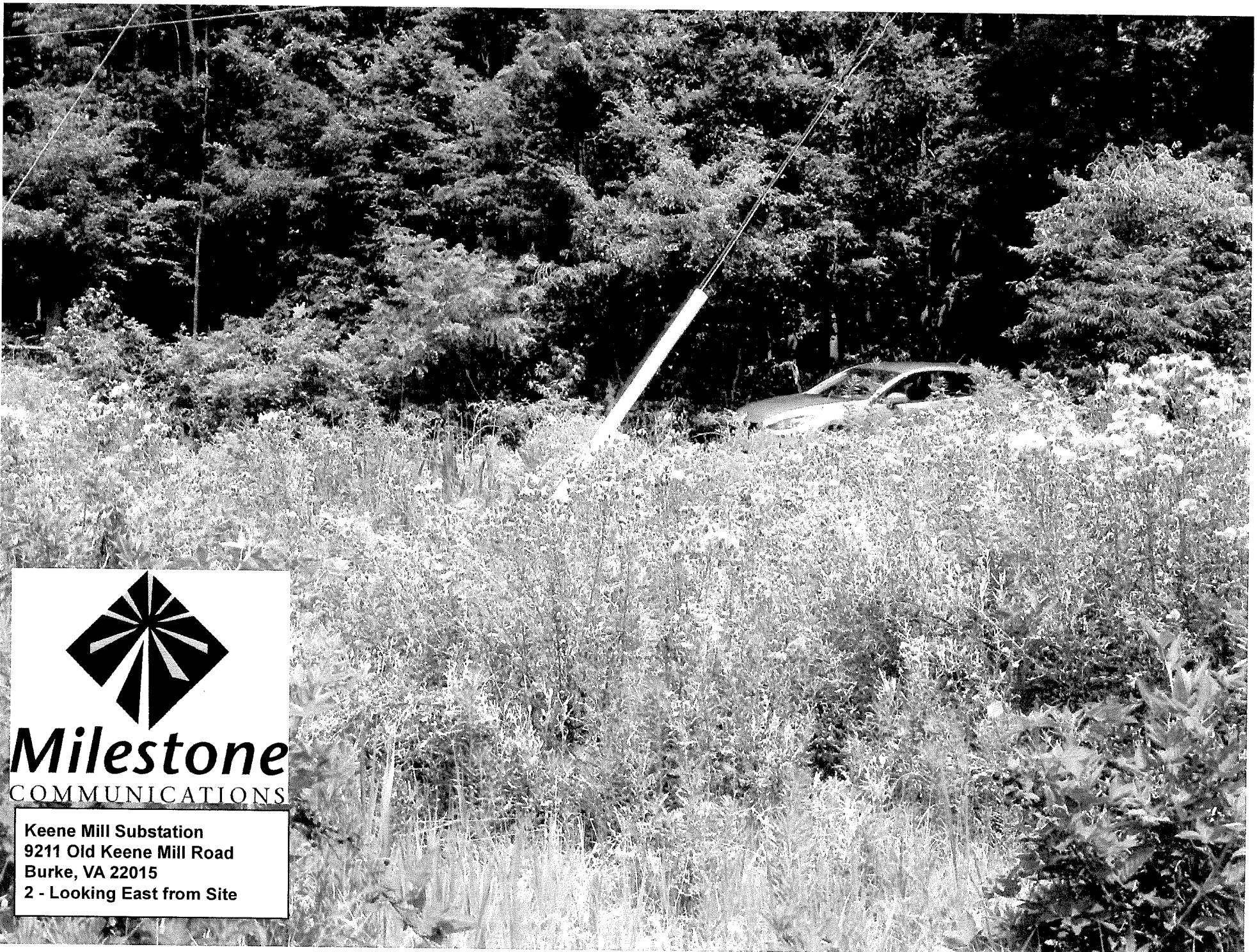
Aerial Imagery Copyright 2007 Commonwealth of Virginia



Milestone
COMMUNICATIONS

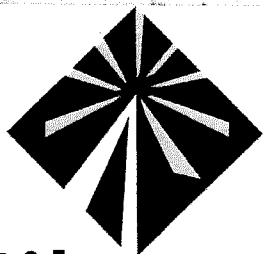
JUL 31 2015

DEPARTMENT OF TRANSPORTATION
PLANNING & DESIGN
Keene Mill Substation
9211 Old Keene Mill Road
Burke, VA 22015
1 - Looking North from Site



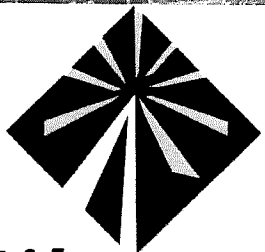
Milestone
COMMUNICATIONS

Keene Mill Substation
9211 Old Keene Mill Road
Burke, VA 22015
2 - Looking East from Site



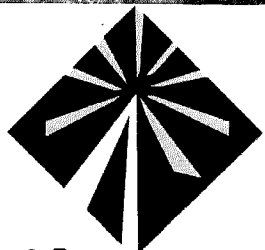
Milestone
COMMUNICATIONS

Keene Mill Substation
9211 Old Keene Mill Road
Burke, VA 22015
3 - Looking South from Site



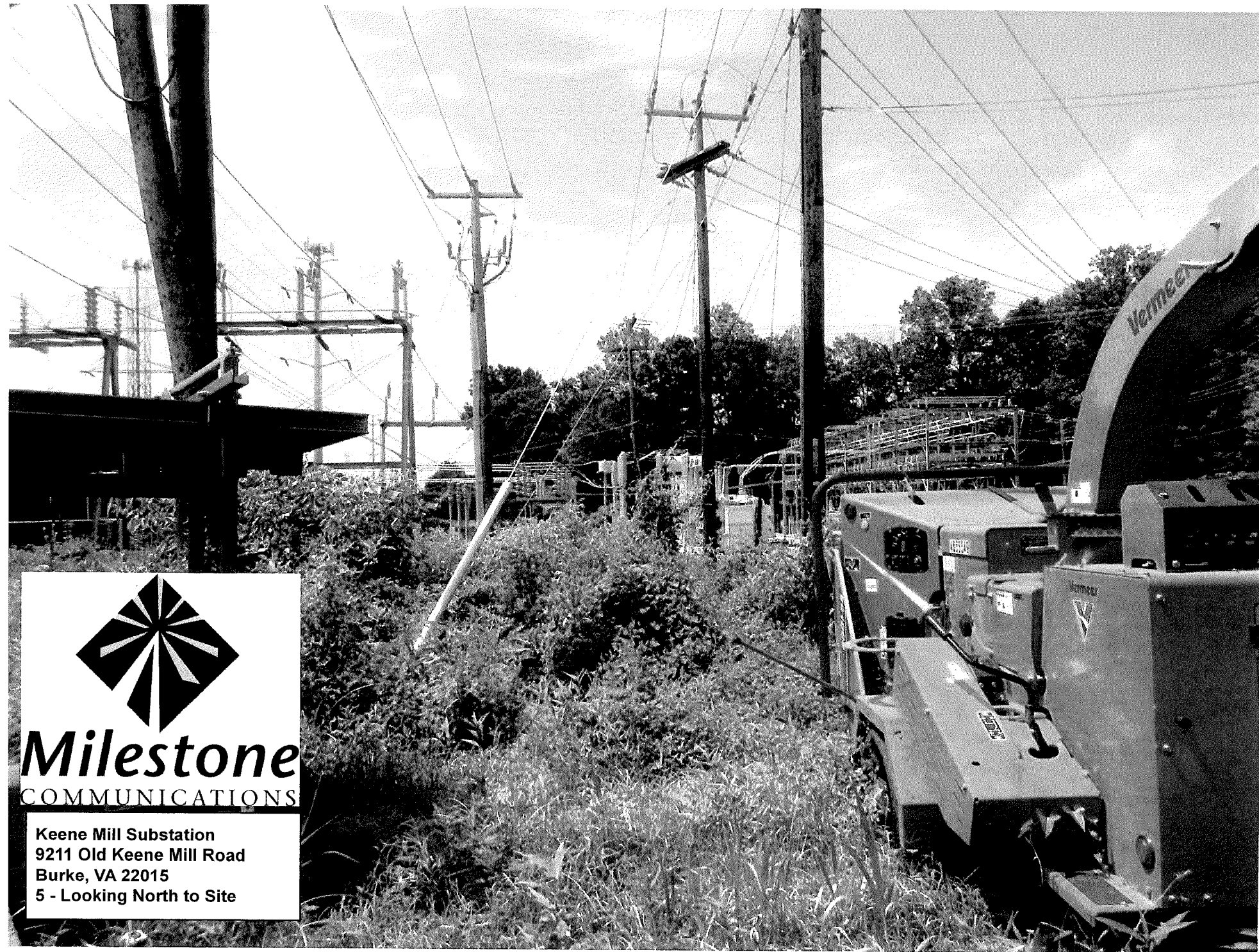
Milestone
COMMUNICATIONS

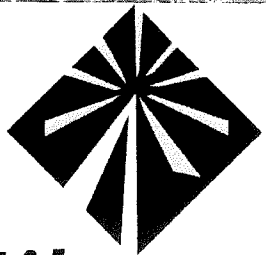
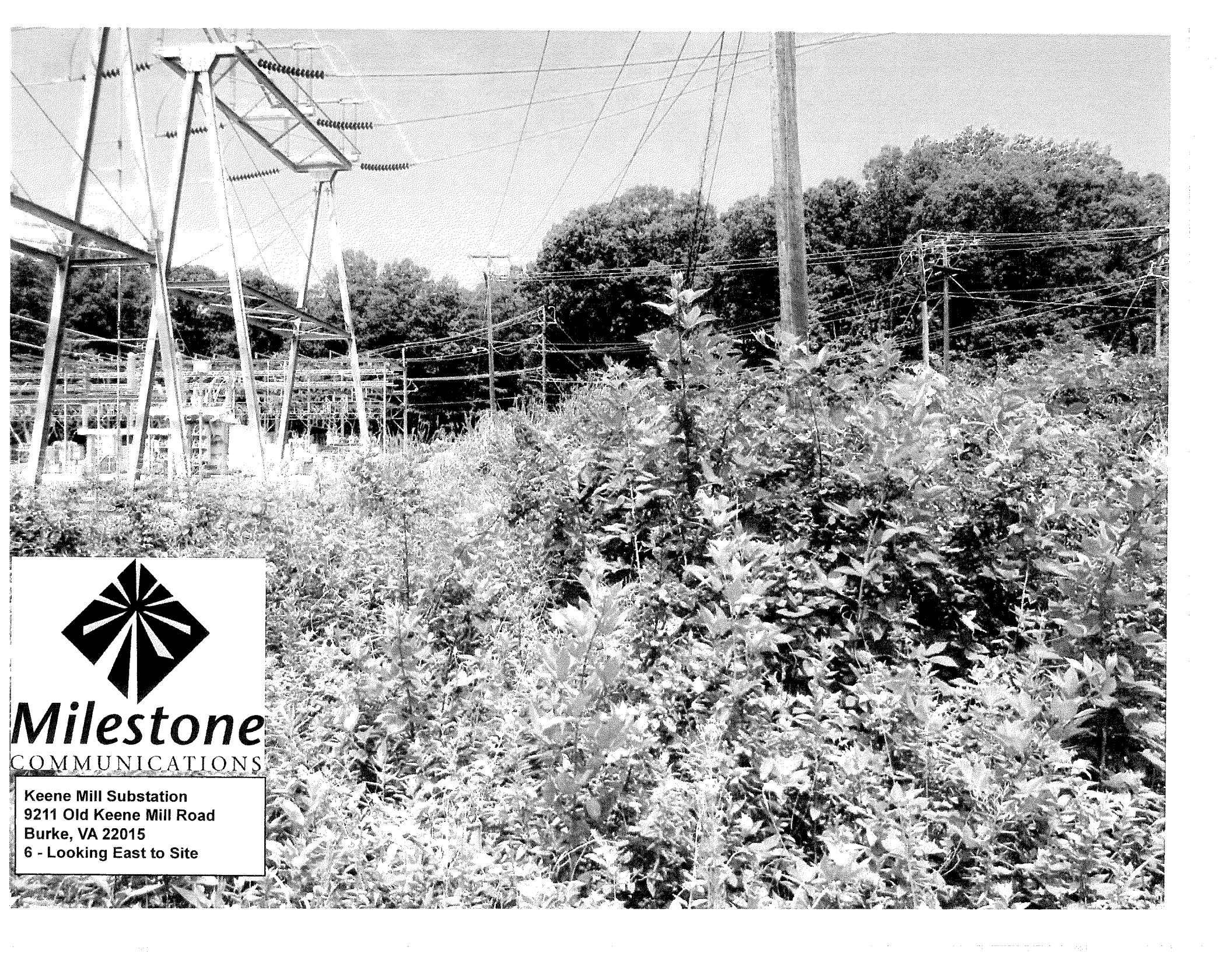
Keene Mill Substation
9211 Old Keene Mill Road
Burke, VA 22015
4 - Looking West from Site



Milestone
COMMUNICATIONS

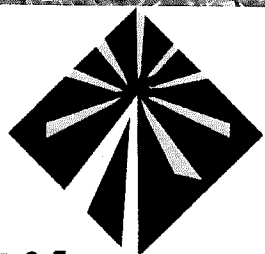
Keene Mill Substation
9211 Old Keene Mill Road
Burke, VA 22015
5 - Looking North to Site





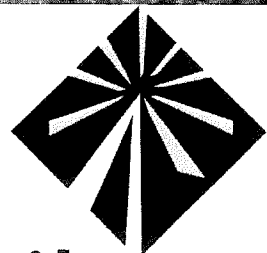
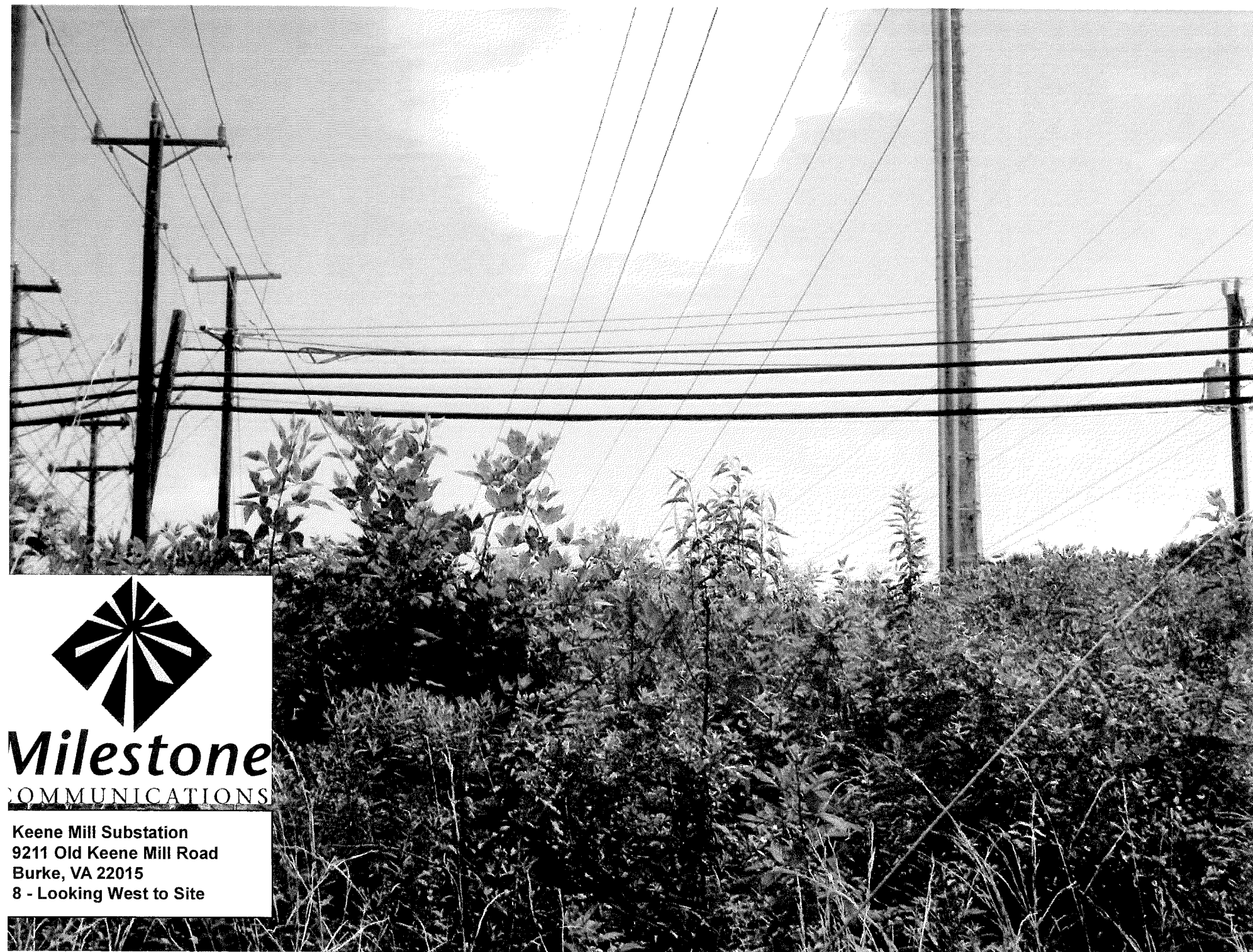
Milestone
COMMUNICATIONS

Keene Mill Substation
9211 Old Keene Mill Road
Burke, VA 22015
6 - Looking East to Site



Milestone
COMMUNICATIONS

Keene Mill Substation
9211 Old Keene Mill Road
Burke, VA 22015
7 - Looking South to Site

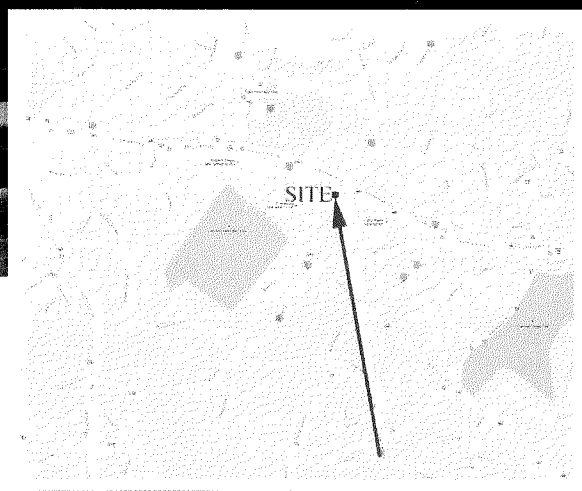
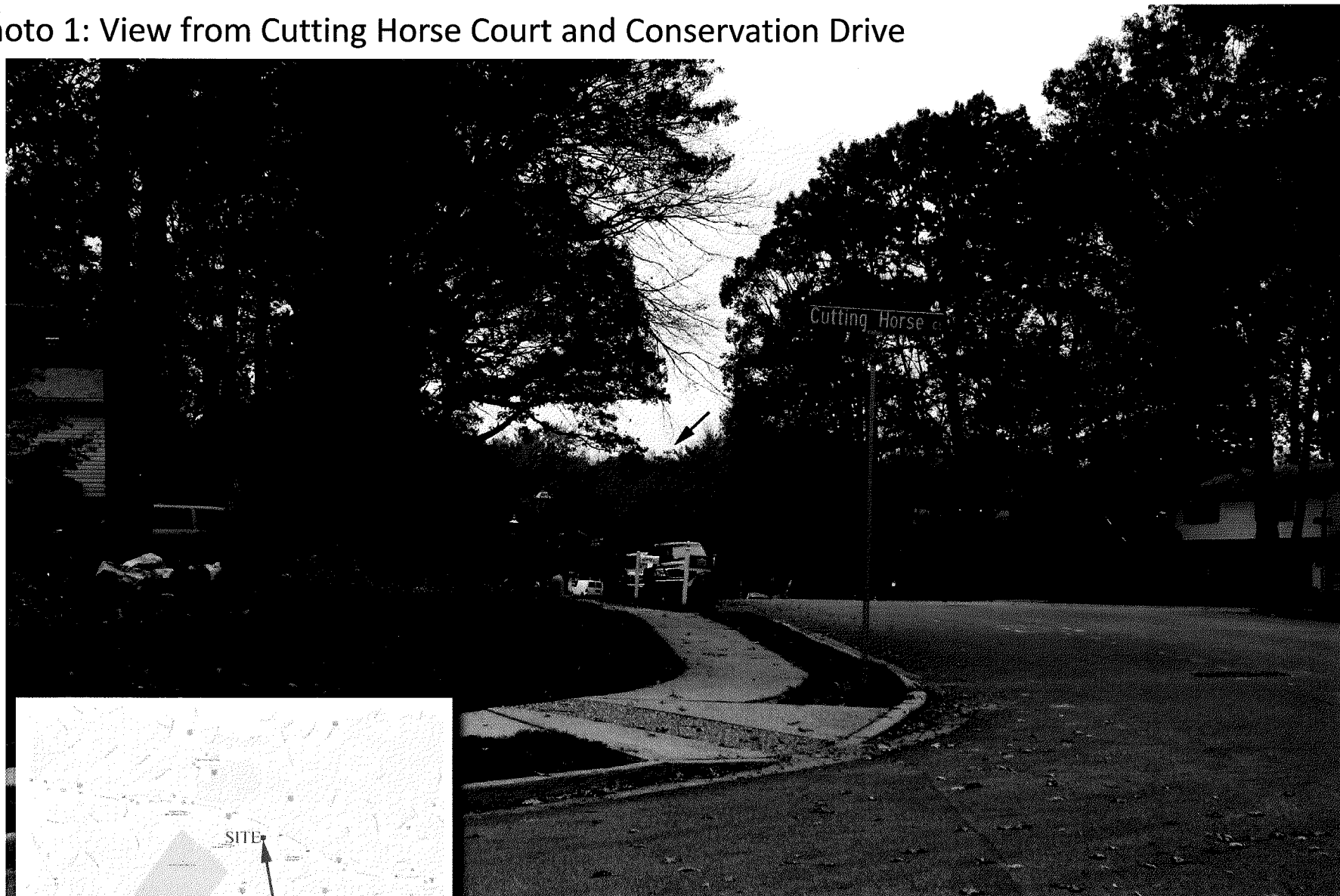


Milestone
COMMUNICATIONS

Keene Mill Substation
9211 Old Keene Mill Road
Burke, VA 22015
8 - Looking West to Site

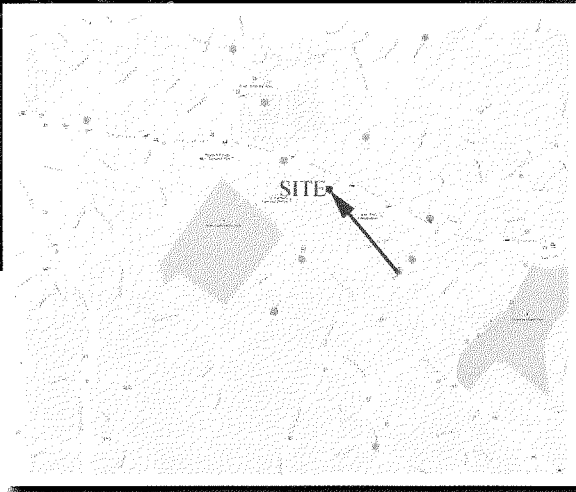


Photo 1: View from Cutting Horse Court and Conservation Drive



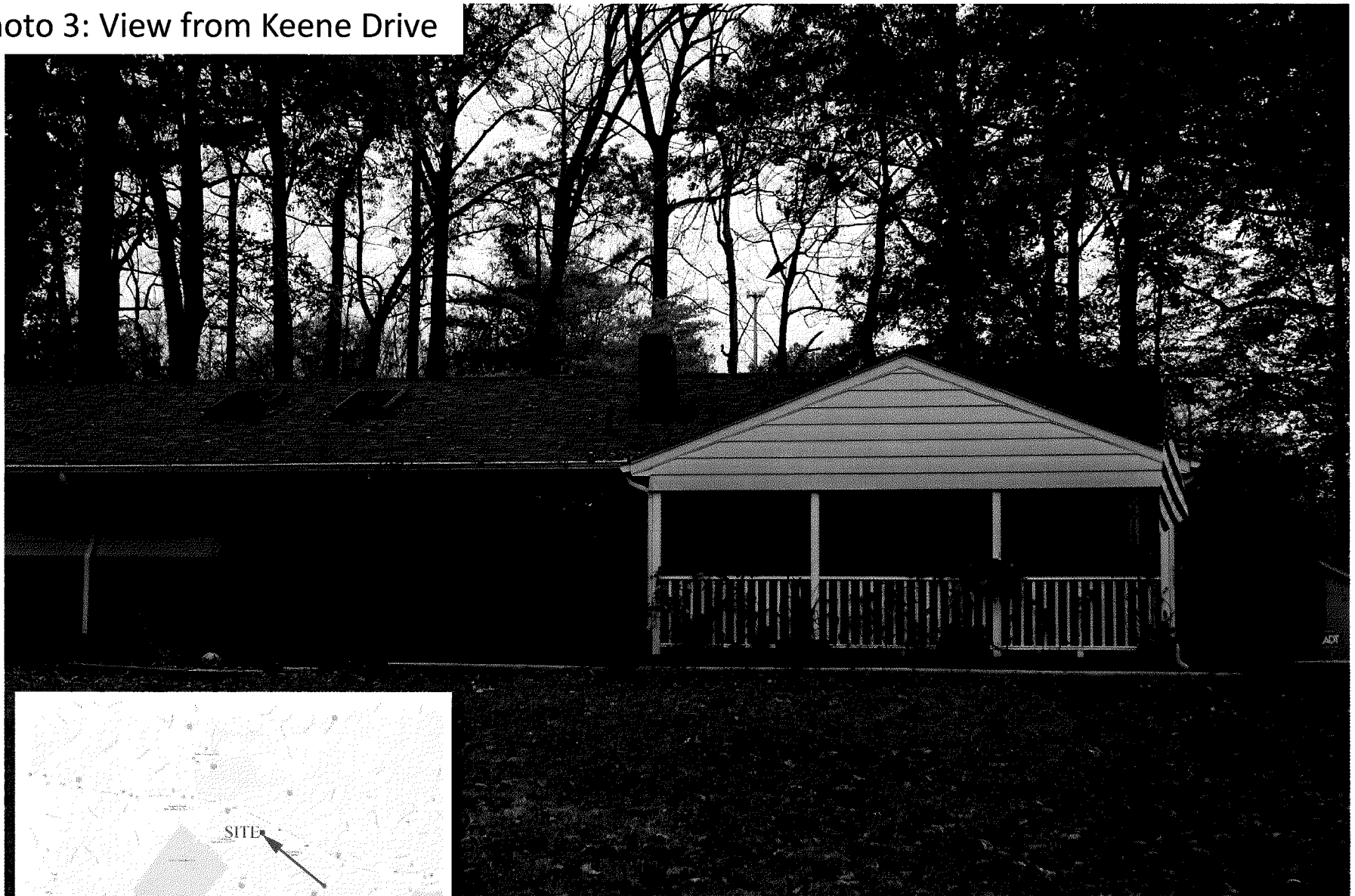
OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Photo 2: View from Keene Drive



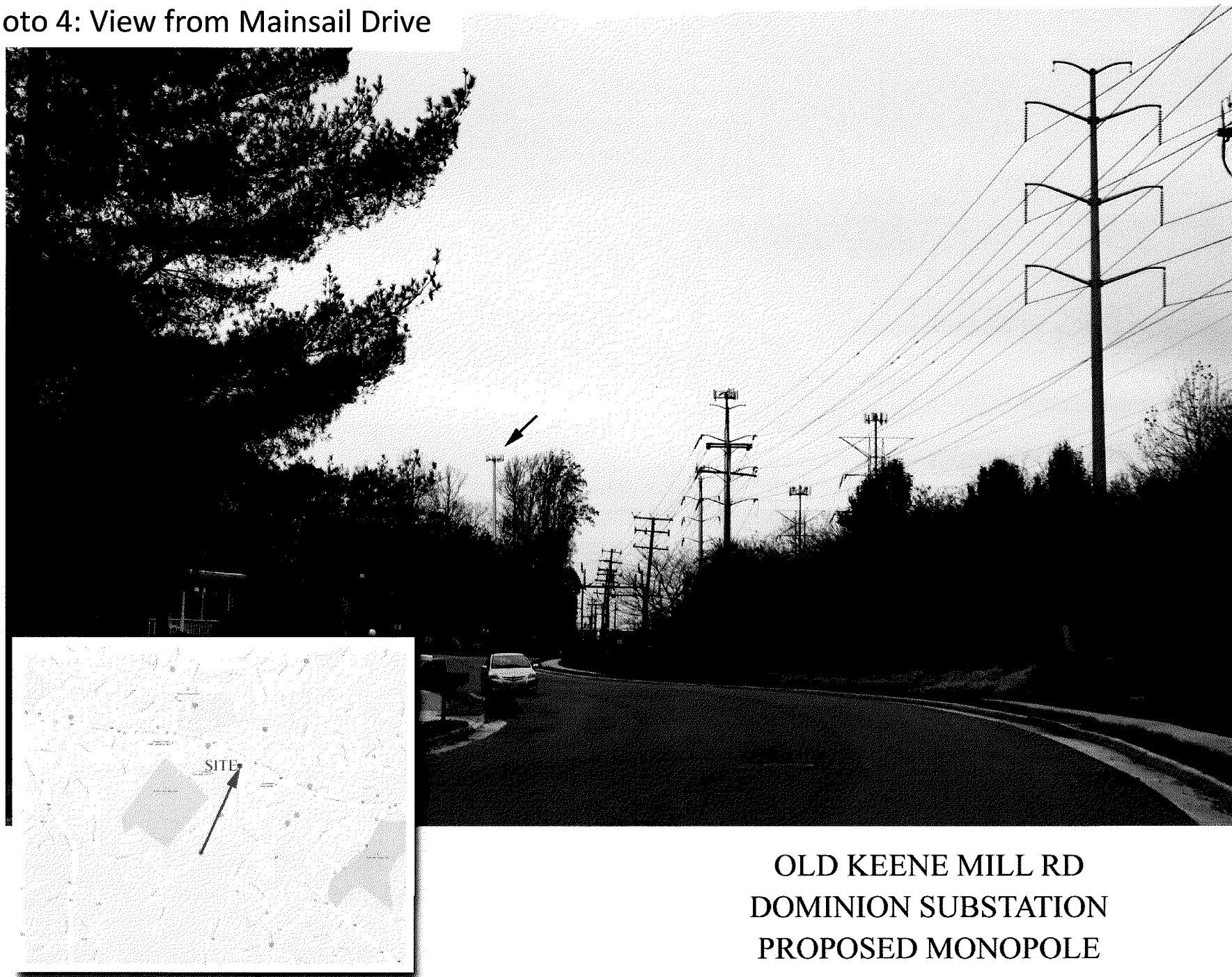
OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Photo 3: View from Keene Drive



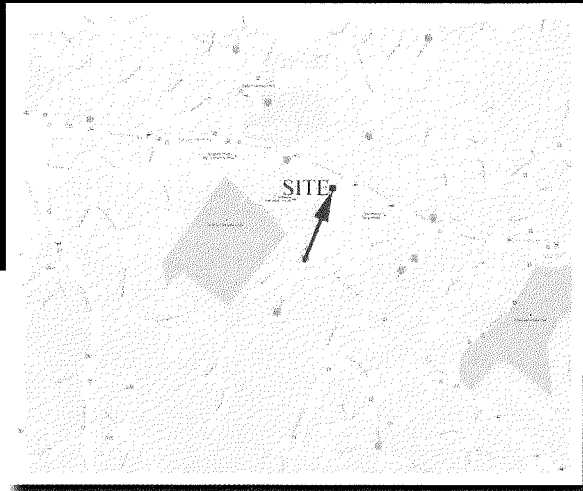
OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Photo 4: View from Mainsail Drive



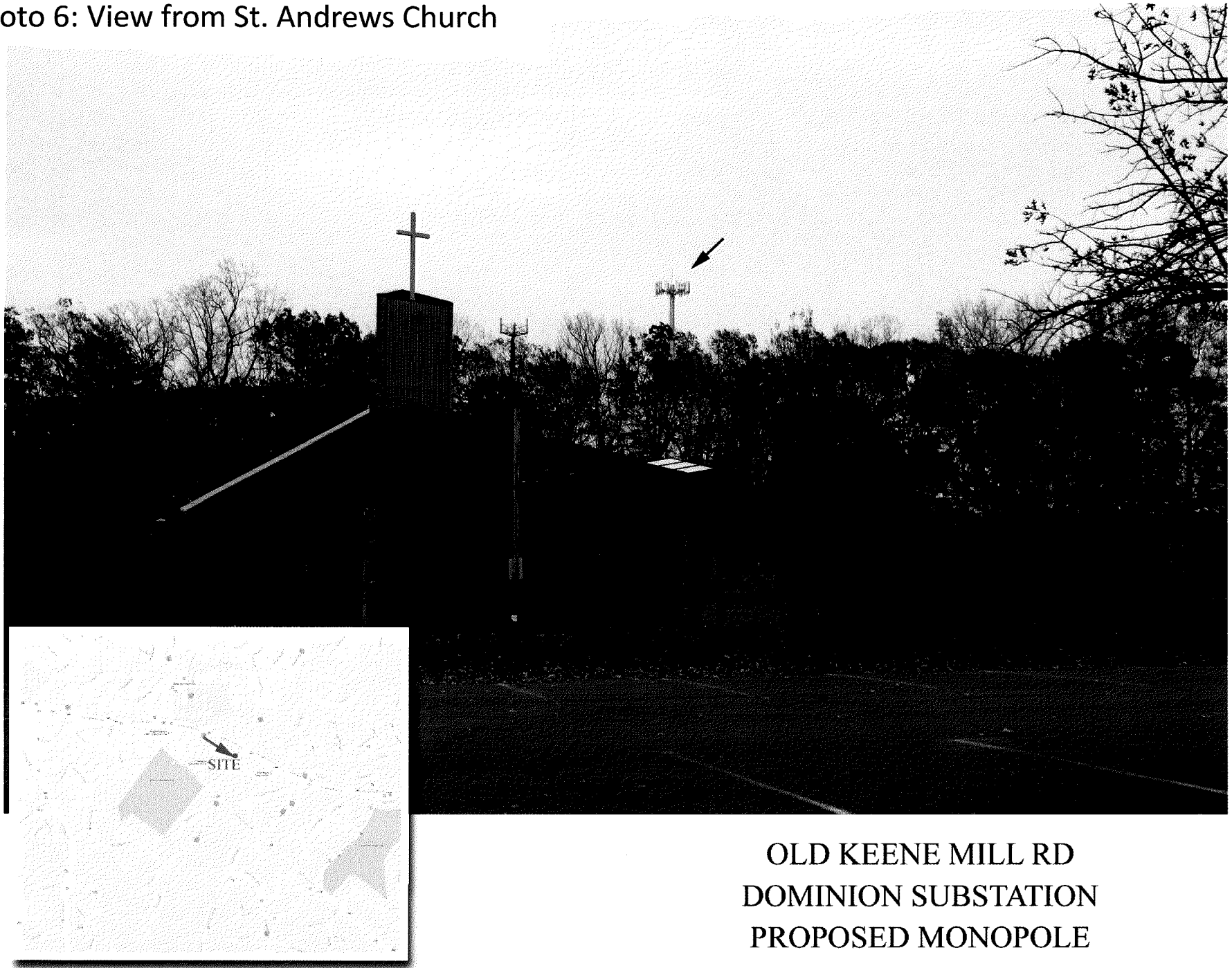
OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Photo 5: View from Mainsail Drive



OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Photo 6: View from St. Andrews Church



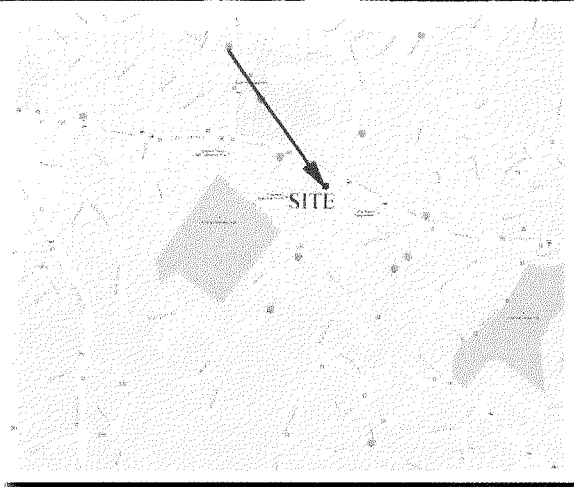
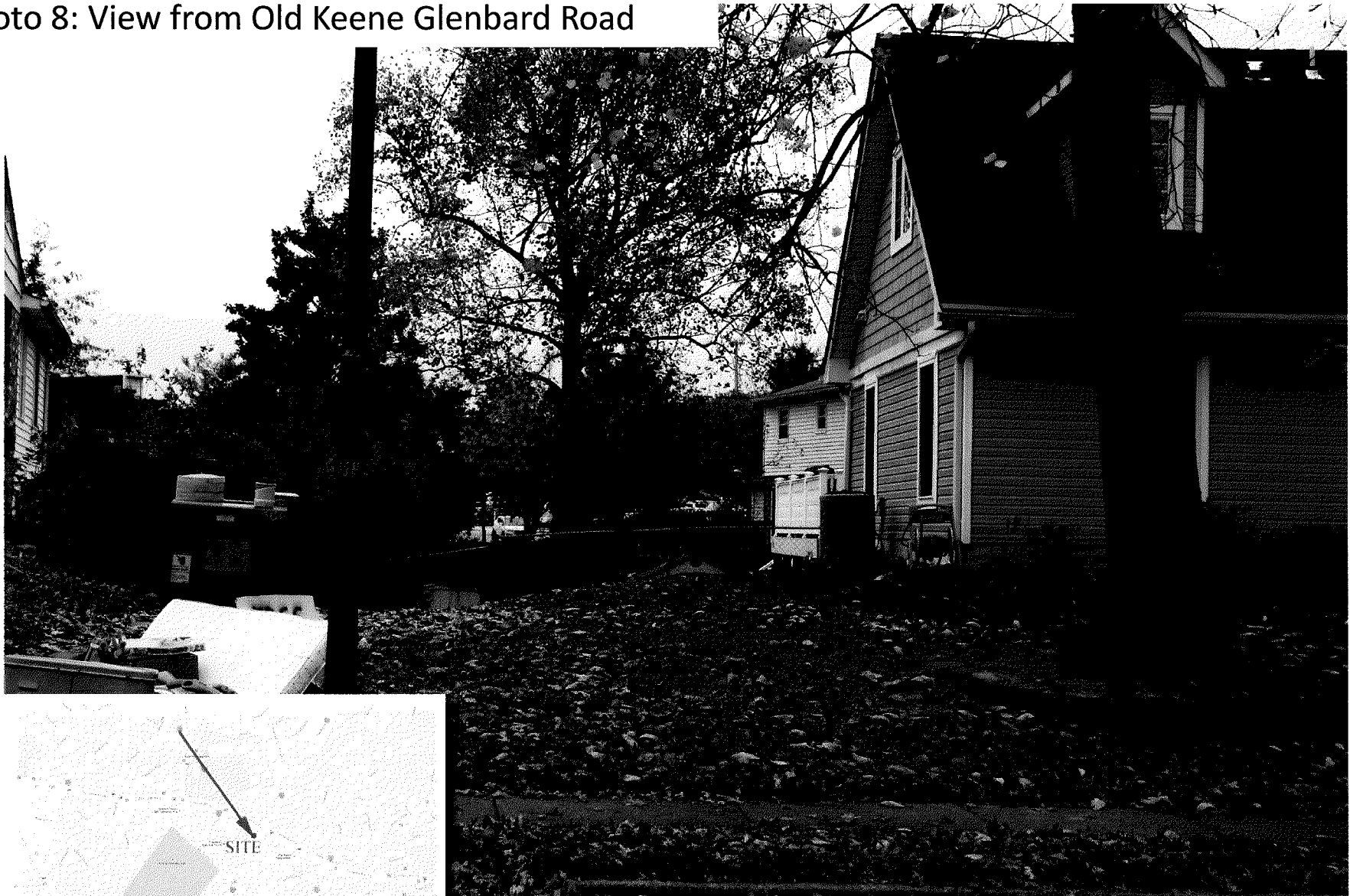
OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Photo 7: Old Keene Mill Road and Glenbard Road



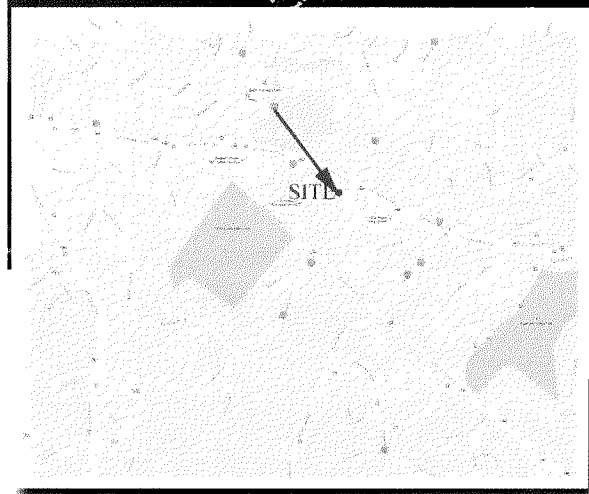
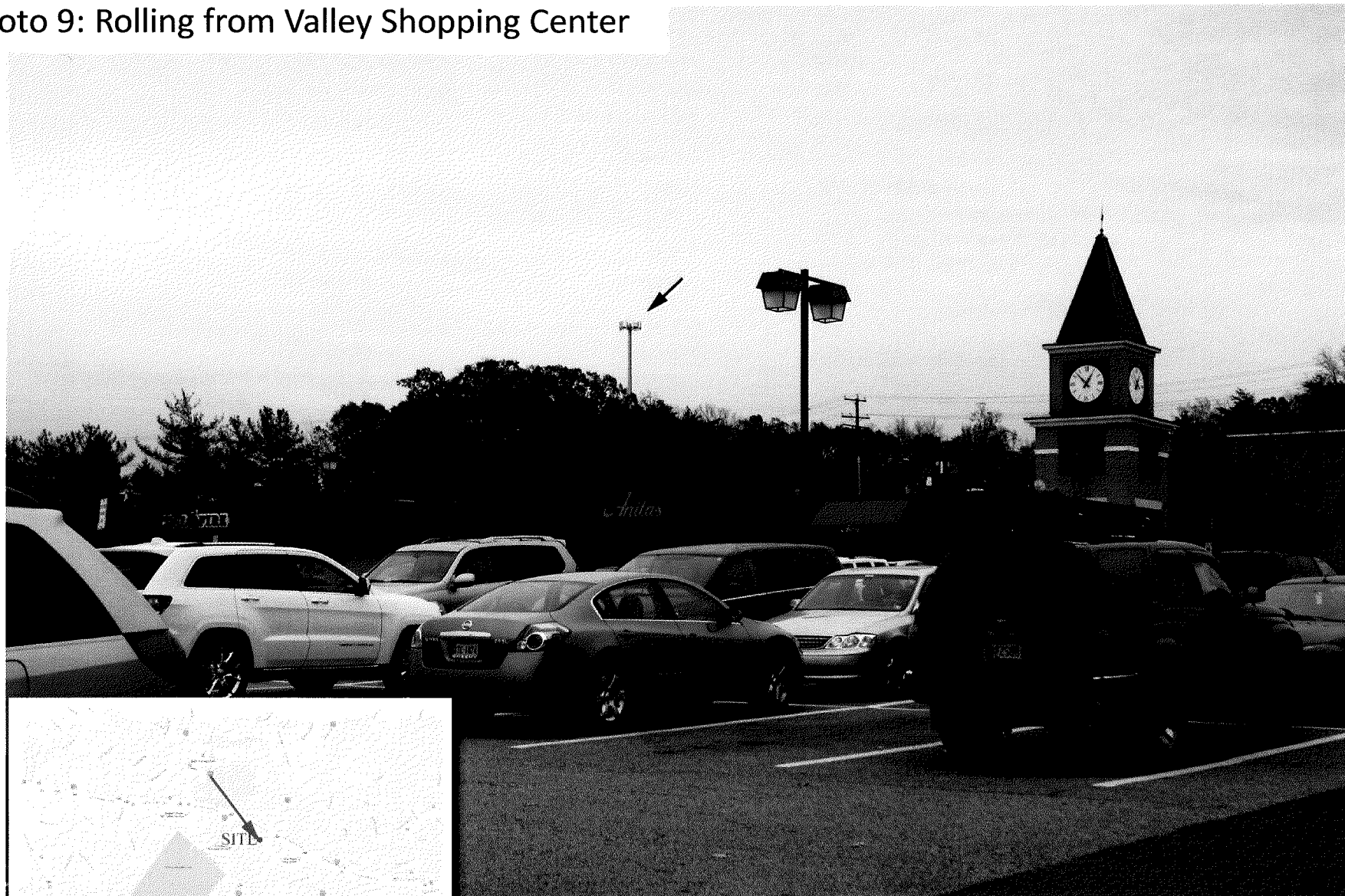
OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Photo 8: View from Old Keene Glenbard Road



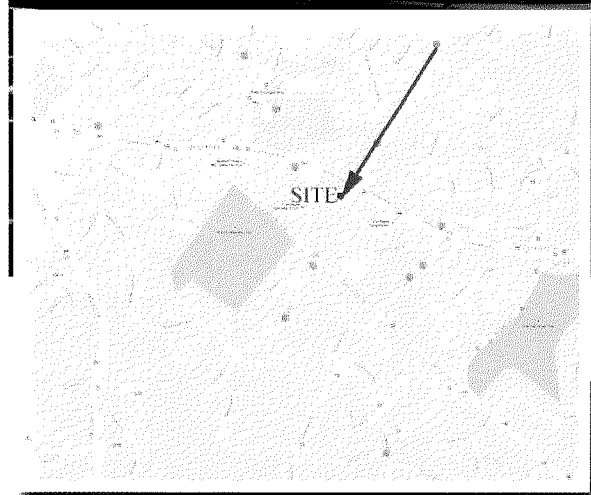
OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Photo 9: Rolling from Valley Shopping Center



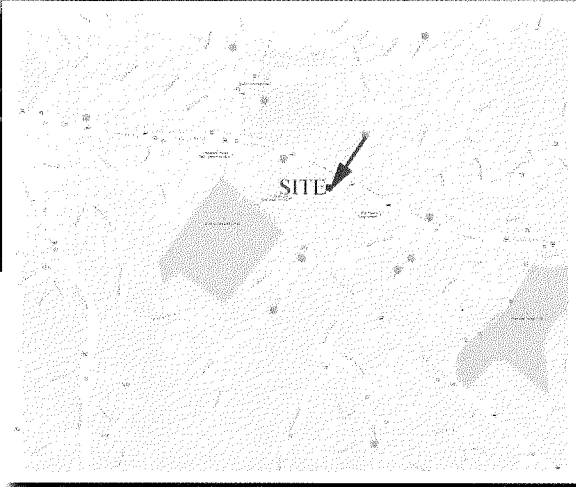
OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Photo 10: View from Fenestra Court



OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Photo 11: View from the Park and Ride Lot



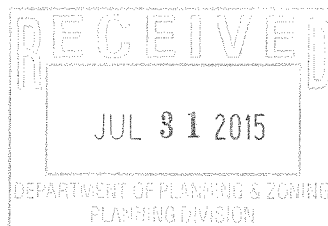
OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Photo 12: Old Keene Mill Road



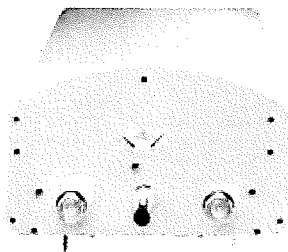
OLD KEENE MILL RD
DOMINION SUBSTATION
PROPOSED MONOPOLE

Product Specifications



COMMScope®

POWERED BY



LNX-6515DS-VTM

Andrew® Antenna, 698–896 MHz, 65° horizontal beamwidth, RET compatible

- Excellent choice to maximize both coverage and capacity in suburban and rural applications
- Fully compatible with Andrew remote electrical tilt system for greater OpEx savings
- Exceptional horizontal pattern roll-off and strong front-to-back ratio
- Extended bandwidth allows one antenna to serve multiple frequency allocations
- Great solution to maximize network coverage and capacity
- The RF connectors are designed for IP67 rating and the radome for IP56 rating

Electrical Specifications

Frequency Band, MHz

	698–806	806–896
Gain, dBi	16.7	17.6
Beamwidth, Horizontal, degrees	65	64
Beamwidth, Vertical, degrees	9.7	8.6
Beam Tilt, degrees	0–8	0–8
USLS, dB	17	17
Front-to-Back Ratio at 180°, dB	32	27
CPR at Boresight, dB	24	27
CPR at Sector, dB	15	13
Isolation, dB	30	30
VSWR Return Loss, dB	1.4 15.6	1.4 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153
Input Power per Port, maximum, watts	400	400
Polarization	±45°	±45°
Impedance	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz

	698–806	806–896
Gain by all Beam Tilts, average, dBi	16.6	16.9
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.3
Gain by Beam Tilt, average, dBi	0° 16.6 4° 16.6 8° 16.4	0° 17.0 4° 17.0 8° 16.8
Beamwidth, Horizontal Tolerance, degrees	±1	±0.9
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.4
USLS, dB	18	18
Front-to-Back Total Power at 180° ± 30°, dB	25	23
CPR at Boresight, dB	24	27
CPR at Sector, dB	15	13

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

General Specifications

Antenna Brand	Andrew®
Antenna Type	DualPol®
Band	Single band
Brand	DualPol® Teletilt®

Product Specifications

COMMScope®

LNx-6515DS-VTM

Operating Frequency Band 698 – 896 MHz
Performance Note Outdoor usage

POWERED BY



Mechanical Specifications

Color	Light gray
Lightning Protection	dc Ground
Radiator Material	Aluminum
Radome Material	Fiberglass, UV resistant
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, total	2
Wind Loading, maximum	878.0 N @ 150 km/h 197.4 lbf @ 150 km/h
Wind Speed, maximum	241.0 km/h 149.8 mph

Dimensions

Depth	180.5 mm 7.1 in
Length	2453.0 mm 96.6 in
Width	301.0 mm 11.9 in
Net Weight	19.8 kg 43.7 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed AISG 2.0 Actuator LNX-6515DS-A1M
RET System Teletilt®

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU
China RoHS SJ/T 11364-2006
ISO 9001:2008

Classification

Compliant by Exemption
Above Maximum Concentration Value (MCV)
Designed, manufactured and/or distributed under this quality management system



Included Products

DB380-3 — Pipe Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Used for wide panel antennas. Includes three clamp sets.

DB5083D — Downtilt Mounting Kit for 2.4"-4.5" (60-115 mm) OD round members. Consists of two DB5083 heavy-duty, galvanized steel downtilt mounting brackets. This kit is compatible with the DB380-3 pipe mount for panel antennas with three mounting points.

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance

Product Specifications

COMMScope®

POWERED BY



HBXX-6516DS-VTM

Andrew® Quad Port Teletilt® Antenna, 1710–2180 MHz, 65° horizontal beamwidth, RET compatible

- Each DualPol® array can be independently adjusted for greater flexibility
- Excellent gain, VSWR, front-to-back ratio; and PIM specifications for robust network performance
- Ideal choice for site collocations and tough zoning restrictions
- Great solution to maximize network coverage and capacity

Electrical Specifications

Frequency Band, MHz	1710–1880	1850–1990	1920–2180
Gain, dBi	17.7	18.0	18.0
Beamwidth, Horizontal, degrees	67	66	64
Beamwidth, Vertical, degrees	7.5	7.0	6.6
Beam Tilt, degrees	0–10	0–10	0–10
USLS, dB	18	18	18
Front-to-Back Ratio at 180°, dB	30	30	30
CPR at Boresight, dB	22	22	21
CPR at Sector, dB	8	9	9
Isolation, dB	30	30	30
VSWR Return Loss, dB	1.4 15.6	1.4 15.6	1.4 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153
Input Power per Port, maximum, watts	350	350	350
Polarization	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz	1710–1880	1850–1990	1920–2180
Gain by all Beam Tilts, average, dBi	17.2	17.2	17.5
Gain by all Beam Tilts Tolerance, dB	±0.3	±0.3	±0.5
	0° 17.0	0° 17.1	0° 17.4
Gain by Beam Tilt, average, dBi	5° 17.3	5° 17.4	5° 17.7
	10° 17.0	10° 17.0	10° 17.2
Beamwidth, Horizontal Tolerance, degrees	±2.7	±2.3	±3.5
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.4	±0.4
USLS, dB	18	19	19
Front-to-Back Total Power at 180° ± 30°, dB	26	26	26
CPR at Boresight, dB	22	22	22
CPR at Sector, dB	9	9	9

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs](#).

General Specifications

Antenna Brand	Andrew®
Antenna Type	DualPol® quad
Band	Single band
Brand	DualPol® Teletilt®
Operating Frequency Band	1710 – 2180 MHz

Product Specifications

COMMScope®

HBXX-6516DS-VTM

POWERED BY



Mechanical Specifications

Color	Light gray
Lightning Protection	dc Ground
Radiator Material	Low loss circuit board
Radome Material	PVC, UV resistant
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, total	4
Wind Loading, maximum	419.0 N @ 150 km/h 94.2 lbf @ 150 km/h
Wind Speed, maximum	241.0 km/h 149.8 mph

Dimensions

Depth	166.0 mm 6.5 in
Length	1294.0 mm 50.9 in
Width	305.0 mm 12.0 in
Net Weight	13.9 kg 30.6 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed AISG 2.0 Actuator	HBXX-6516DS-A2M
RET System	Teletilt®

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU
China RoHS SJ/T 11364-2006
ISO 9001:2008

Classification

Compliant by Exemption
Above Maximum Concentration Value (MCV)
Designed, manufactured and/or distributed under this quality management system

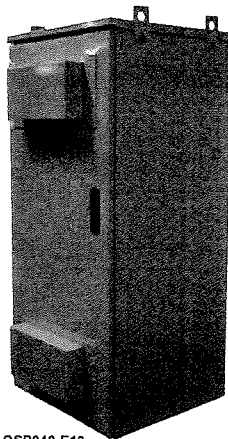
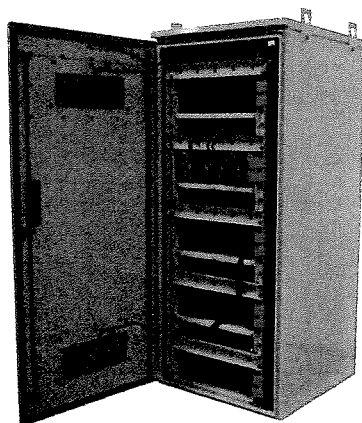


Included Products

600899A-2 — Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

**EQUIPMENT CATALOG SHEETS
INCLUDING GENERATOR AND TELCO CABINETS**

Charles Universal Broadband Enclosures (CUBE) Battery Backup Cabinets



CUBE BBU cabinets are ideally suited for cell sites and other outdoor environments when a large amount of battery backup is required. Multiple BBU cabinets can be combined to achieve an even greater amount of battery backup time. BBU cabinets can be installed adjacent to or remotely from a BTS cabinet.

Specifications

Construction	0.125" Aluminum Welded Construction Outer Enclosure, Powder Coated Off White Finish, 10 Gauge Steel Battery Racks
Mounting Style	Pad Mount Enclosure
Thermal Management	Direct Air Cooling, Solar Shield
Door Latching	3-Point Latching with Pad Lockable Handle in Front, Removable Panel in Rear
Battery Types / Termination	Ni-CD or VRLA, Anderson Disconnects for Each String
Bus Bars	Two (2) 2x14 Position Bus Bars
Cable Entrance	Seven (7) 1.75/2.5" Double Knockout on RHS, One (1) 1.75/2.5" Double Knockout on LHS, Seven (7) 1.75/2.5" Double Knockout on Rear
Alarms	Door Intrusion
Certifications	Telcordia Zone 4 Seismic, Telcordia GR-487 and UL (pending)

Supported Battery Types

Manufacturer	Battery Model #	Ah	Manufacturer	Battery Model #	Ah
Northstar	NSB155FT	155	GNB Marathon	M12V155FT	155
Northstar	NSB170FT	170	GNB Marathon	M12V180FT	180
Energys	SBS170F	170	Saft	Tel.X 150	150
Energys	SBS190F	190	Saft	Tel.X 180	180
C&D	TEL12-155F	155	East Penn Deka	12AVR-150ET	150
C&D	TEL12-170F	170	East Penn Deka	12AVR-170ET	170
C&D	TEL12-190F	190	Fiamm	12UMTX140	140
C&D	TEL12-210F	210	Fiamm	12UMTX170	170

Part Number	Configuration	Size	Thermal	Battery Strings	Trays	# of Busses	Weight (Empty)	Weight (Loaded)
* CUBE-BB24J1HN1	24V Ni-Cd	73x32x32	DAC	10	5	1	900 lbs	2650 lbs
CUBE-BB48E1HN1	48V Ni-Cd	73x32x32	DAC	5	5	1	900 lbs	2650 lbs
CUBE-BB24F1HN1	24V Ni-Cd	46x32x32	DAC	6	3	1	600 lbs	1675 lbs
CUBE-BB48C1HN1	48V Ni-Cd	46x32x32	DAC	3	3	1	600 lbs	1675 lbs
CUBE-BB24J2XV1	24V VRLA	73x32x32	TEC	10	5	1	900 lbs	3450 lbs
CUBE-BB48E2XV1	48V VRLA	73x32x32	TEC	5	5	1	900 lbs	3450 lbs
CUBE-BB24F2XV1	24V VRLA	46x32x32	TEC	6	3	1	600 lbs	2150 lbs
CUBE-BB48C2XV1	48V VRLA	46x32x32	TEC	3	3	1	600 lbs	2150 lbs
CUBE-BBDLJ2HN1	24 or 48V Ni-Cd	73x32x32	DAC	10	5	2	900 lbs	3450 lbs
CUBE-BBDLJ2XV1	24 or 48V VRLA	73x32x32	TEC	10	5	2	900 lbs	3450 lbs
CUBE-BBDLF2HN1	24 or 48V Ni-Cd	46x32x32	DAC	6	3	2	600 lbs	2150 lbs
CUBE-BBDLF2XV1	24 or 48V VRLA	46x32x32	TEC	6	3	2	600 lbs	2150 lbs

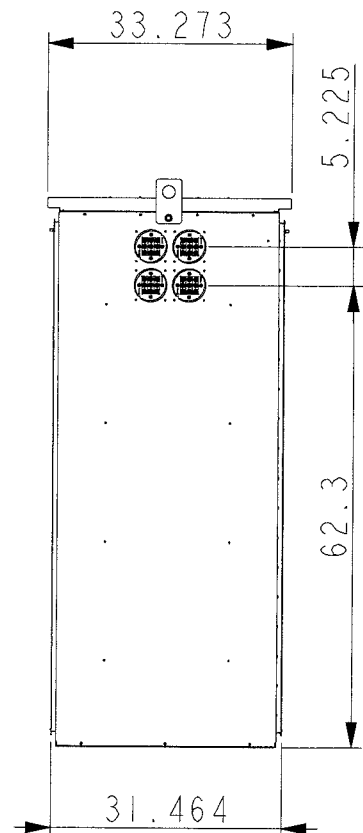
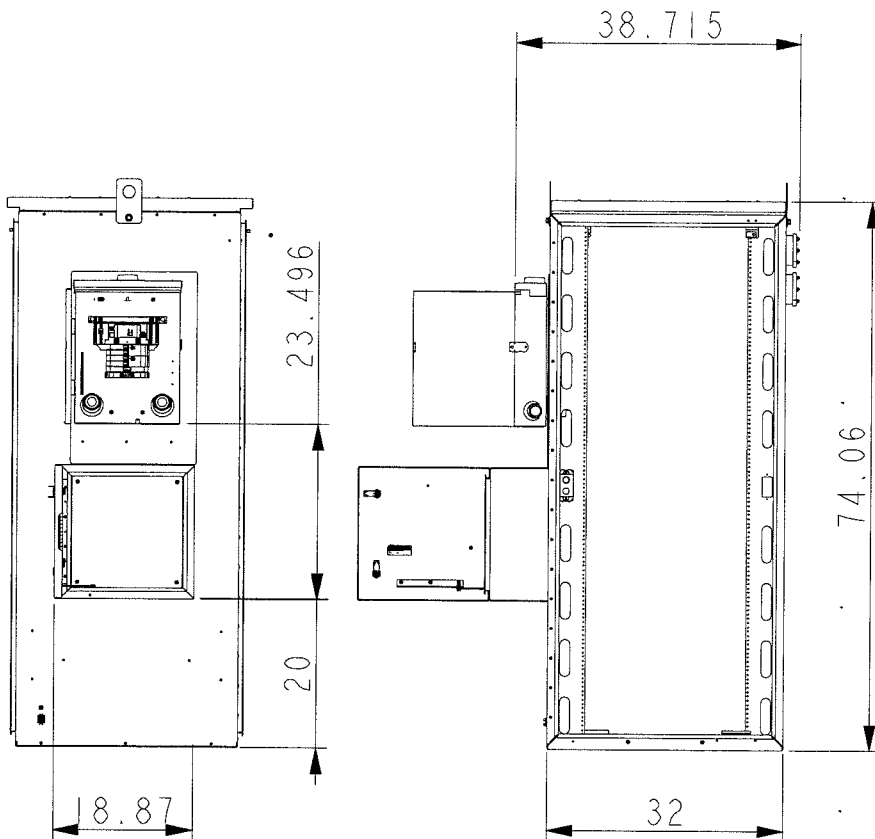
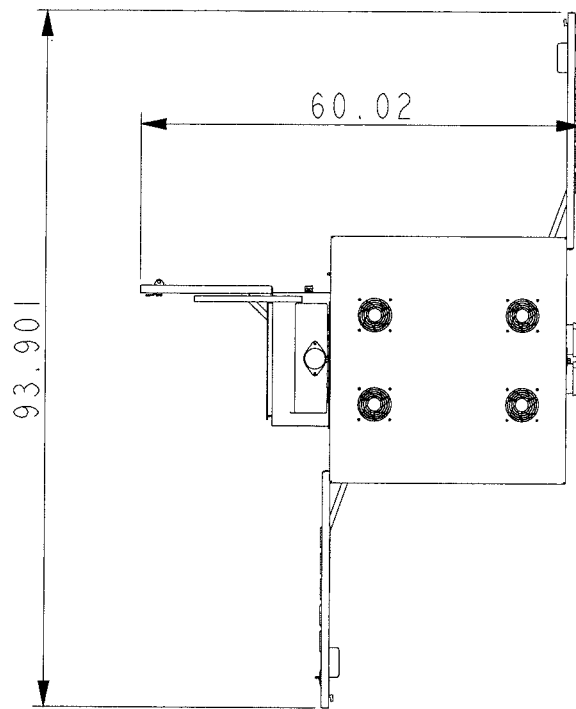
OG-OSP048-E13

INNOVATIVE ENCLOSED SOLUTIONS™

Charles Industries, Ltd.
5600 Apollo Drive
Rolling Meadows IL 60008

Phone: (847) 806-6300
Fax: (847) 806-6231
Web: www.charlesindustries.com

Charles



Charles Industries Ltd.
Telecommunications Group
Charles Center, 5600 Apollo Drive
Rolling Meadows, IL 60008
Telephone: 847-806-6300

SIZE
A

DRAWING NO.

CUBE-PM63922HC1

ISS.

REV.

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REPRODUCED, COPIED OR USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.

SCALE

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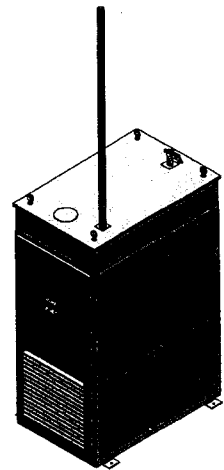
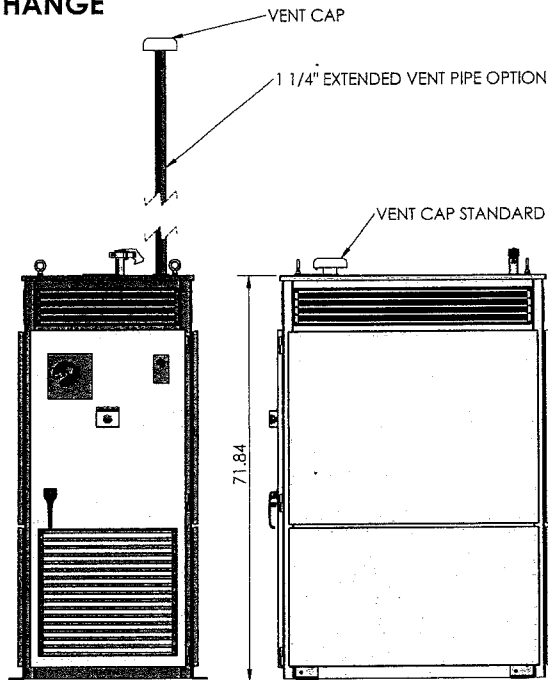
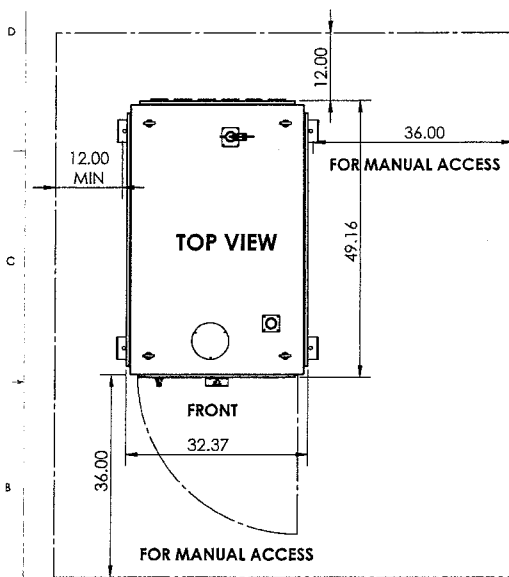
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CUBE-PM63922HC1

SHEET

5 of 5

PRELIMINARY DESIGN. SUBJECT TO CHANGE



INITIAL RELEASE REV DESCRIPTION ECD BY DATE				COMMENTS <h2>PRELIMINARY</h2> <p>PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF POLAR POWER INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF POLAR POWER INC. IS PROHIBITED.</p>				UNLESS OTHERWISE SPECIFIED: CAD GENERATED DRAWING DO NOT MANUALLY UPDATE DIMENSIONS ARE IN INCHES TOLERANCES ARE: FINISHES DECIMALS ANGLES 1/16" 1/32" 1/16" 1/16"				APPROVALS DRAWN CHECKED INGS APPE. TNG APPE.				DATE			
NEXT ASSY USED ON PRSH				APPLICATION DO NOT SCALE DRAWING				POLAR POWER INC. 23524 AVALON BLVD, CARSON, CA 90745 TITLE: ALUMINUM VERTICAL ENCLOSURE, 72 IN SIZE DWG. NO. 88-25-0717 SCALE: 1:48 WEIGHT: SHEET 1 OF 1											



NETWORK SERVICES

Issue 1.0 Date: XX/XX/2008

Document Number: 2008-018-NSTS

New Services and Technology Support

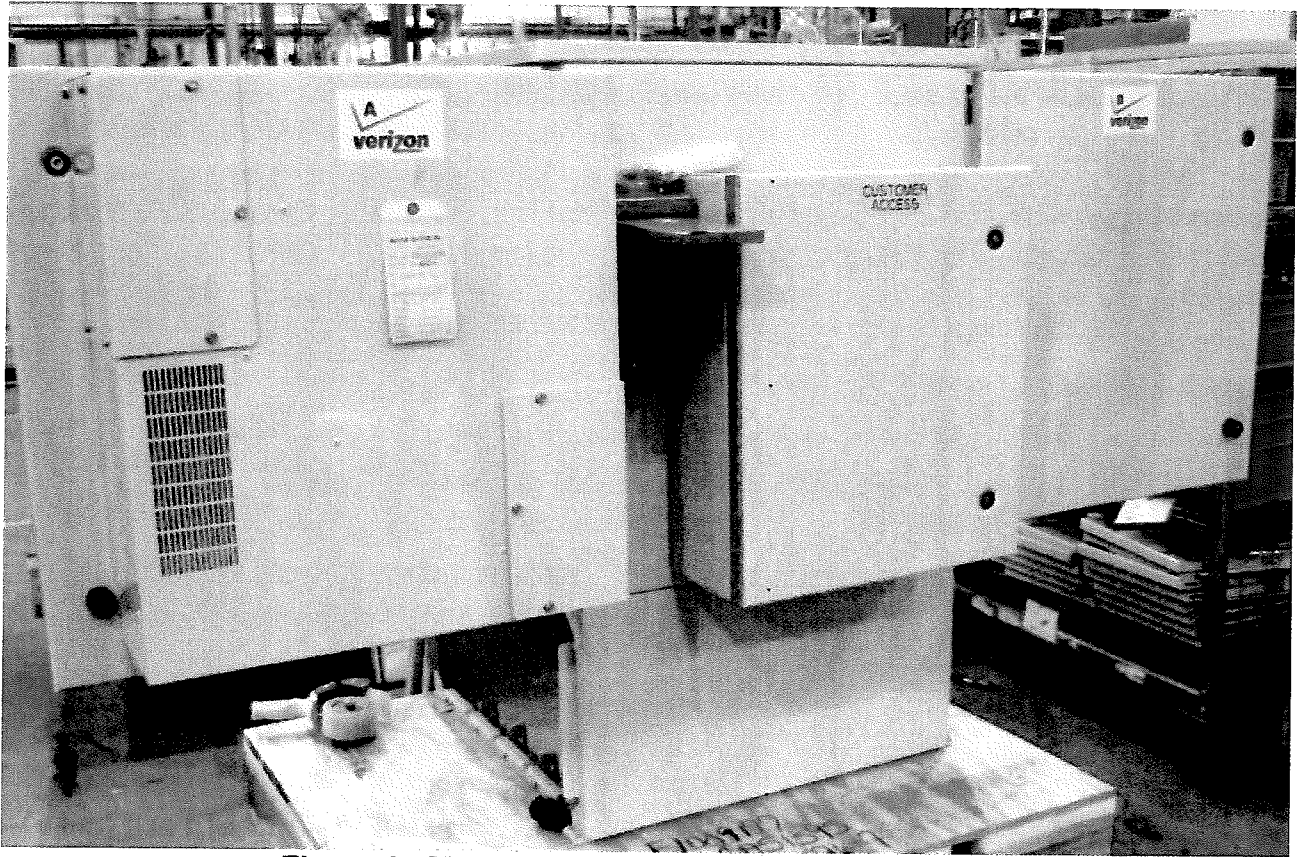


Figure 1 - Mesa Span XL Cabinet with Door Labels



Section 4.11 Cabinet Dimensions

The Mesa Span XL dimensions are:

Height:

- Without battery base: 31.02"
- Battery base for 170 Amp hr. batteries: 15.20"
- Total height with battery base installed: 46.22"
- Depth: 36.39"
- Width: 27.76" without customer access chamber/ 39.39" with customer access chamber

Weight:

- Empty cabinet (approximately) 200 lbs.
- For heat exchanger add approximately 50 lbs.
- For batteries add approximately 200 lbs.
- For equipment add approximately 375 lbs.

Doors open on three sides of the cabinet. Plan on door opening dimensions listed in the figures below. Allow enough space to open the doors and access the equipment

Recommended Concrete pad dimensions: 36" x 78.50"

Flat pad dimensions: 42" x 42"



NETWORK SERVICES

Issue 1.0 Date: XX/XX/2008
Document Number: 2008-018-NSTS

New Services and Technology Support

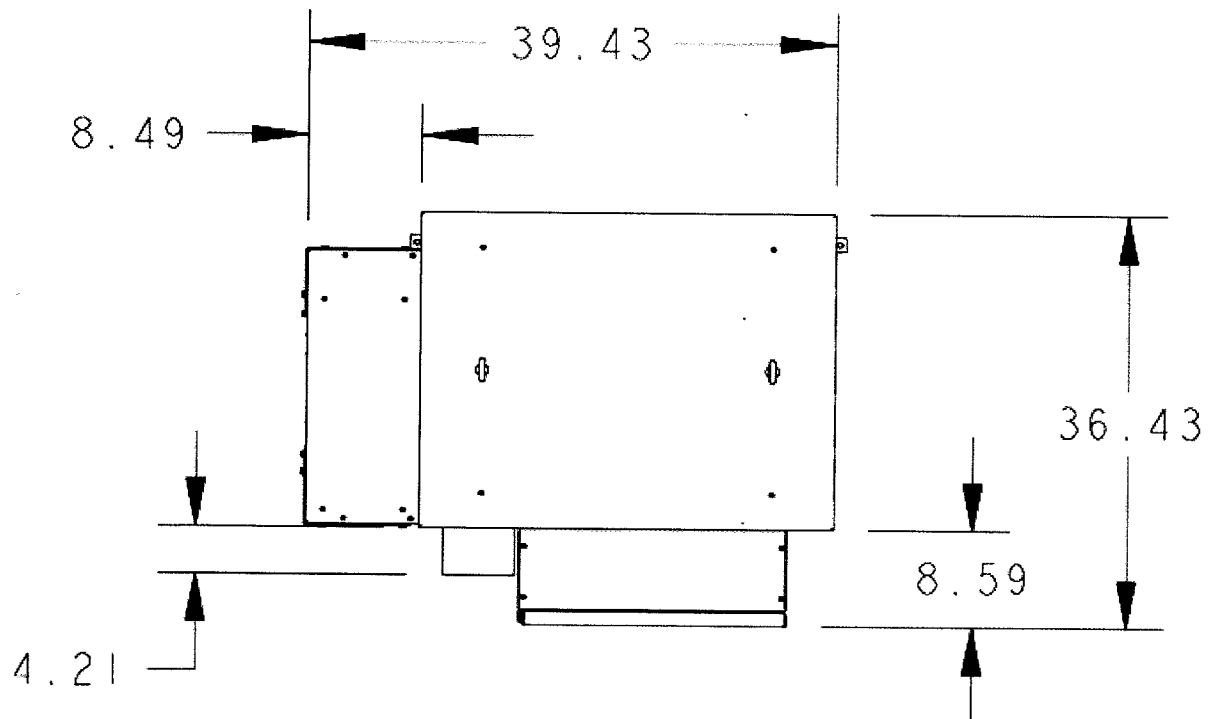
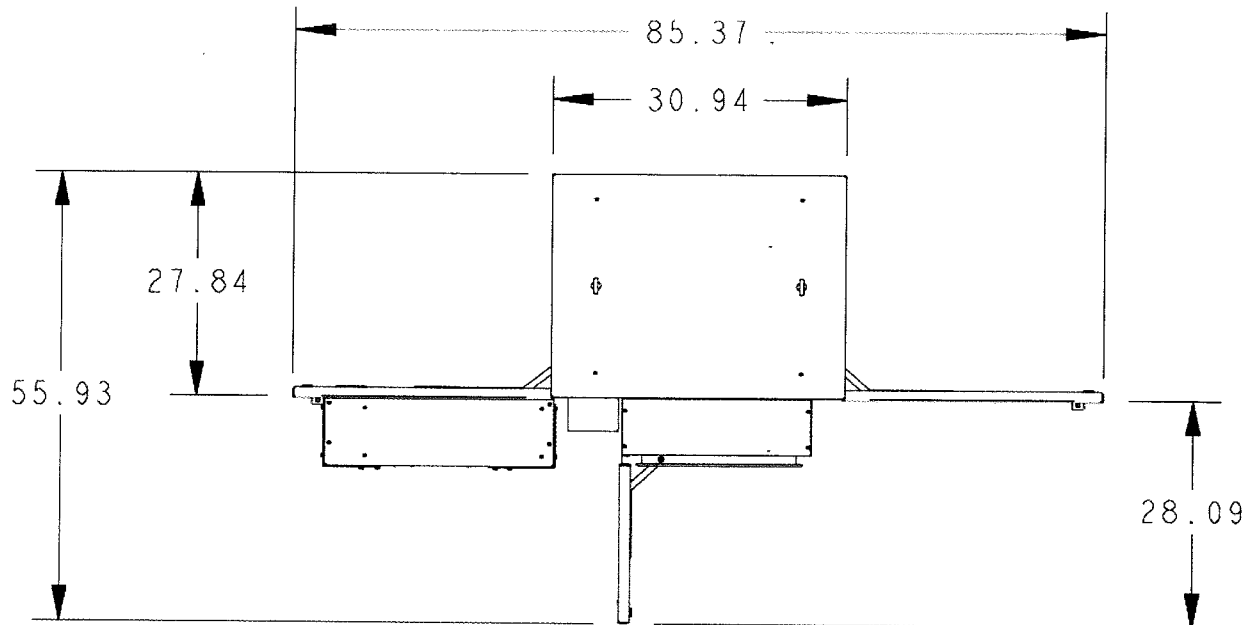


Figure 12 - Dimensions Top



NETWORK SERVICES

New Services and Technology Support

Issue 1.0 Date: XX/XX/2008
Document Number: 2008-018-NSTS

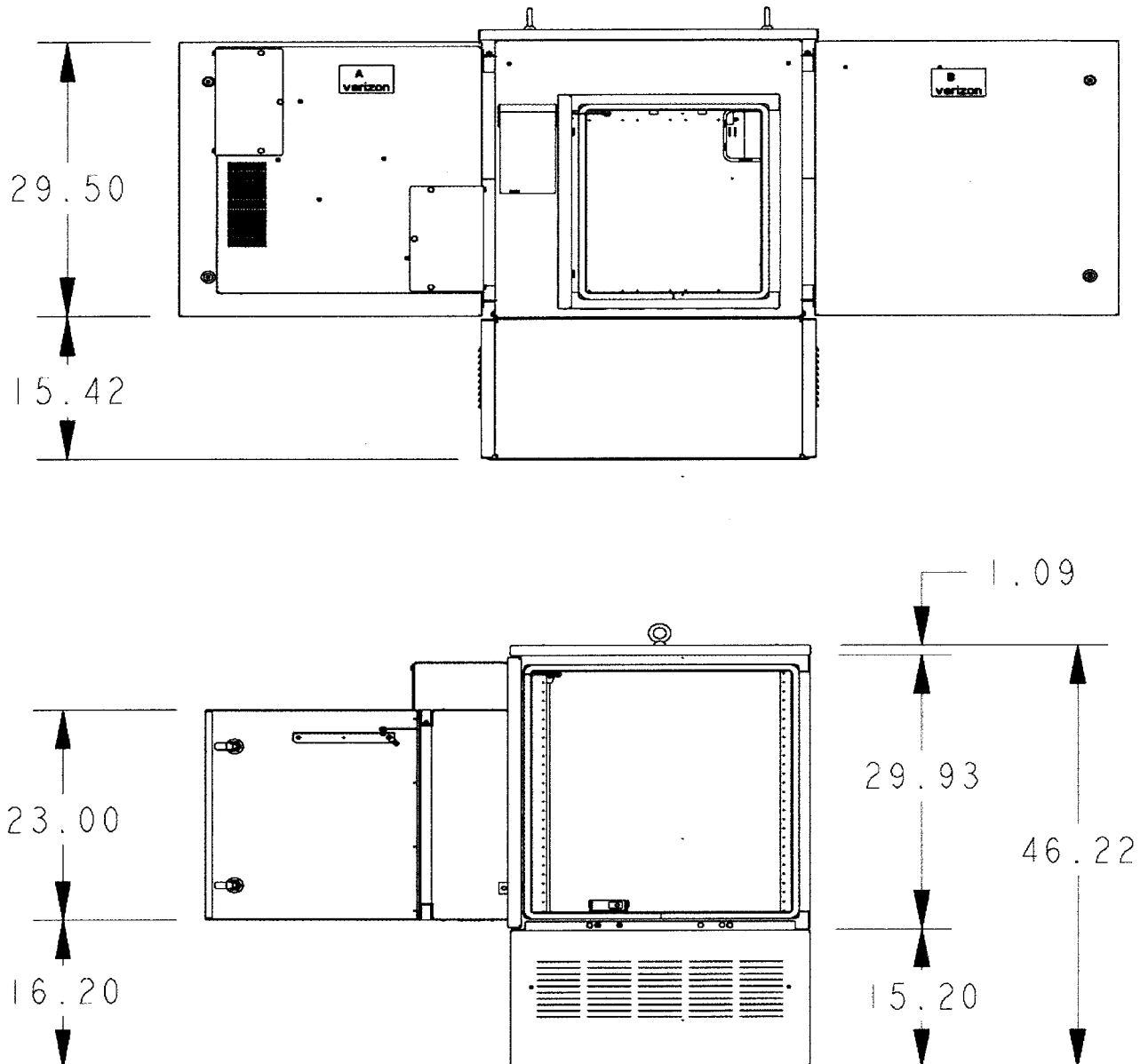
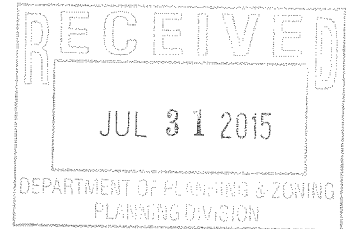


Figure 13 – Side Dimensions



January 9, 2015

**Statement of Certified Engineer
Site Selection and Performance Standards**

Site Name: Keene Mill Heights
Site Address: 9211 Old Keene Mill Road, Burke, VA 22015

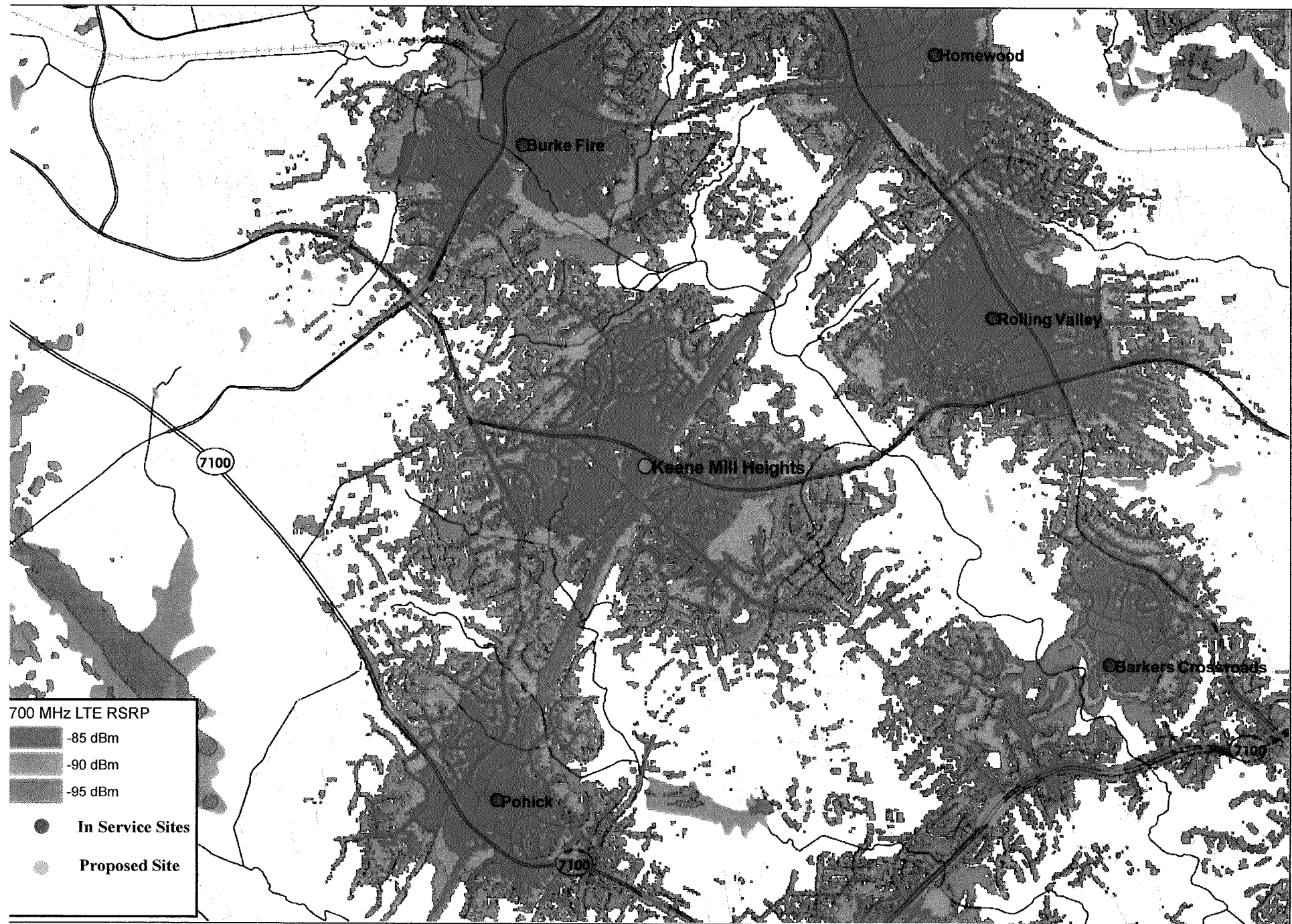
The Dominion substation parcel located at 9211 Old Keene Mill Road, Burke, VA was selected by Verizon Wireless to provide and improve wireless coverage along and around Old Keene Mill Rd and Sydenstricker Rd. The proposed site will greatly enhance service for customers using the nearby park and ride, shopping and business centers, library and park. In addition, it will enhance in-building coverage to the homes of residents in an area that currently has poor LTE coverage.

The applicant identified existing structures of sufficient height in the area. However, each of the existing Dominion Virginia Power (DVP) transmission towers that were of sufficient height and structurally capable were already occupied by other carriers. By adding Verizon Wireless equipment, these transmission towers would fail structurally.

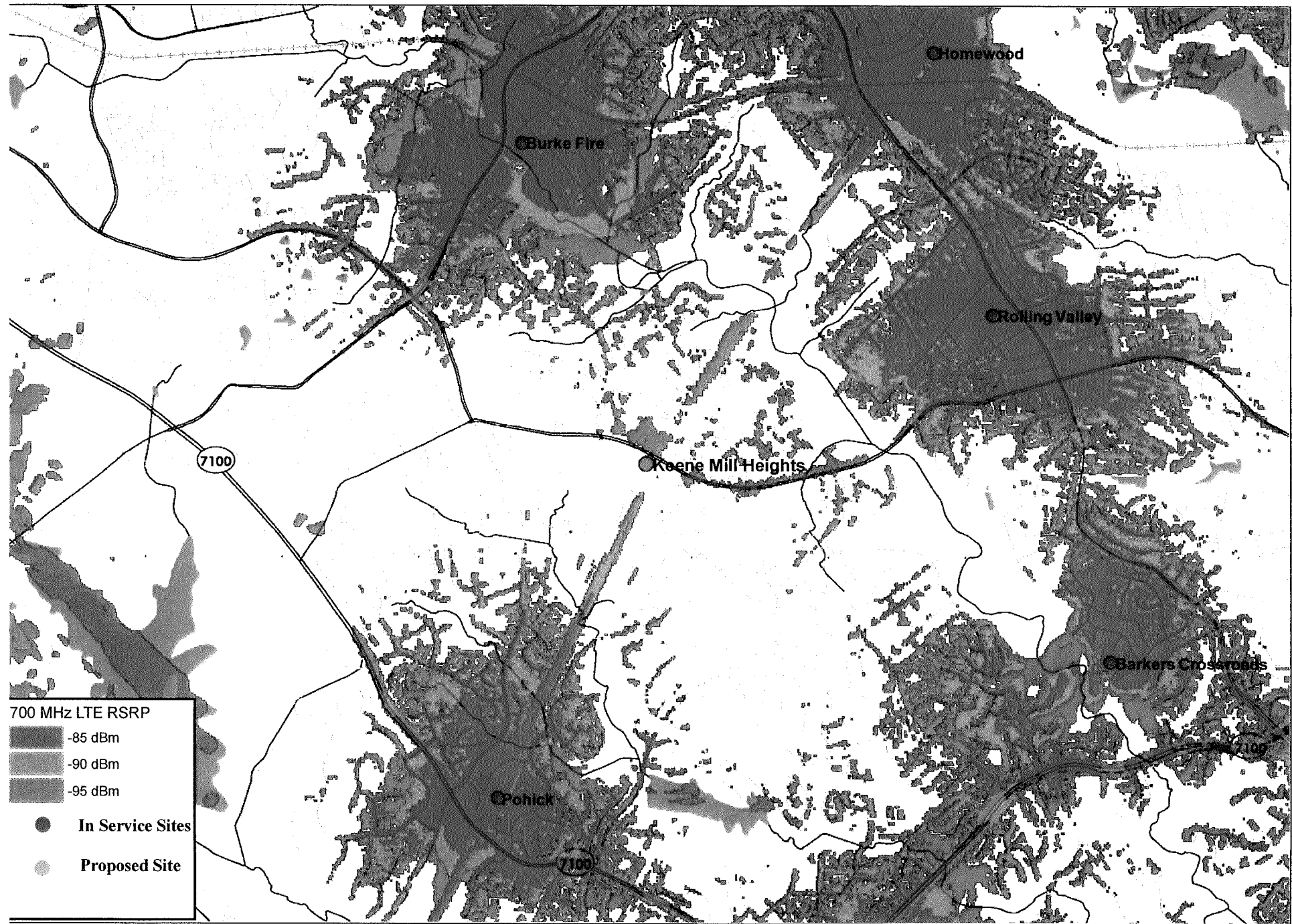
The proposed Milestone facility will resolve the need for adequate coverage in the area surrounding the proposed site and also ensure adequate overlapping coverage between and among existing Verizon sites. Ultimately, the proposed site will allow residents and commuters to experience better quality and diminished drop calls. The propagation maps attached to the application and prepared by an RF Engineer illustrate the improved coverage that will result with the addition of the new telecommunications site.

Shawn Boykins
Radio Frequency Engineer
9000 Junction Drive
Annapolis Junction, MD 20701

Keene Mill Heights with Neighbors at 130ft (Target -95 dBm)

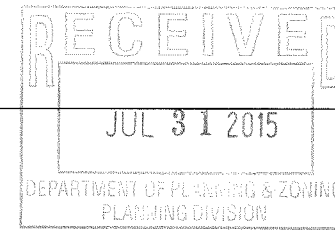


Keene Mill Heights only Neighbors (Target -95 dBm)





Milestone
COMMUNICATIONS



KEENE MILL SUBSTATION

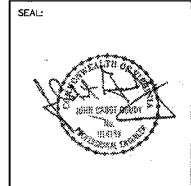
9211 OLD KEENE MILL ROAD

BURKE, VA 22015



6600 Rockledge Drive, Suite 550
BETHESDA, MD 20817
PHONE: (202)408-0950
FAX: (202)408-0951

SUBMITTALS		
DATE	DESCRIPTION	REV.
07-06-15	ZONING REVIEW	
07-28-15	ZONING	



Milestone
COMMUNICATIONS

PROJECT NO: 1050.175
DESIGNER: R.S.
ENGINEER: M.M.

SCALE:
0 1/2 1
GRAPHIC SCALE IN INCHES

**KEENE MILL
SUBSTATION**
9211 OLD KEENE MILL RD
BURKE, VA 22015

TITLE: TITLE SHEET

TITLE SHEET

SHEET NUMBER:

T-1

GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAS MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BEING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CONSTRUCTION MANAGER OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWING/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATION UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUM OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE PROJECT BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
12. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMOODGES OF ANY NATURE.
13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
14. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE PROJECT THAT IS IN CONFLICT UNTIL THE CONFLICT IS RESOLVED BY THE CONSTRUCTION MANAGER.
15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE PROJECT.

APPROVALS

MILESTONE COMMUNICATIONS:

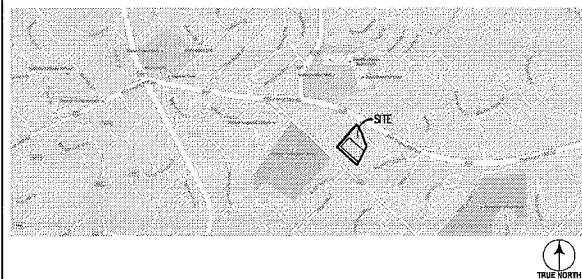
NAME _____ DATE _____

DVP REPRESENTATIVE:

NAME _____ DATE _____

VICINITY MAP

DIRECTIONS:
FROM 12010 SUNSET HILLS ROAD, SUITE 100 RESTON, VA: PROCEED WEST ON SUNSET HILLS ROAD, MERGE ONTO VA-268 S/FAIRFAX COUNTY PARKWAY, TURN LEFT ONTO OLD KEENE MILL ROAD, OLD KEENE MILL ROAD IS 0.7 MILES PAST BURKE LAKE ROAD OPPOSITE THE PARK AND RIDE LOT.



SYMBOLS AND ABBREVIATIONS

ADJ. APPROX	ADJUSTABLE APPROXIMATE	MCH	MECHANICAL	SPOT ELEVATION
CAB	CABINET	MFR	MANUFACTURER	
CLG	Ceiling	MGB	MAIN GROUND BAR	CENTERLINE
CONC	CONCRETE	MIN	MINIMUM	PLATE
CONT	CONTINUOUS	MTL	METAL	
CJ	CONSTRUCTION JOINT	NTS	NOT TO SCALE	
DIA	DIAMETER	OC	ON CENTER	DETAIL NUMBER
DWG	DRAWING	OPF	OPPOSITE	SHEET NUMBER
EQB	EQUIPMENT GROUND BAR	SF	SQUARE FOOT	
EA	EACH	SHT	SHEET	
ELEC	ELECTRICAL	SM	SIMILAR	
EL	ELEVATION	SS	STAINLESS STEEL	
EQ	EQUAL	STL	STEEL	
EQUIP	EQUIPMENT	TOT	TOP OF CONCRETE	
EXT	EXTERIOR	TOM	TOP OF MASONRY	
FF	FINISHED FLOOR	TOS	TOP OF STEEL	
GA	GAGE	TYP	TYPICAL	
GALV	GALVANIZED	VF	VERIFY IN FIELD	
GB	GROUND BAR	UN	UNLESS OTHERWISE NOTED	
GC	GENERAL CONTRACTOR	WFF	WELDED WIRE FABRIC	
GRND	GROUND	W/	WITH	
LG	LONG	&	AND	
LJH	LONG LEG HORIZONTAL	Ø	AT	
MAX	MAXIMUM			

SHEET INDEX

- T-1 TITLE SHEET
- Z-1 SITE PLAN
- Z-2 EROSION AND SEDIMENT CONTROL PLAN AND DETAILS
- Z-3 COMPOUND PLAN
- Z-4 MONOPOLE ELEVATION
- Z-5 SITE PROFILES
- Z-6 CIVIL MAPS
- Z-7 SITE DETAILS
- Z-8 ANTENNA LAYOUT, SECTION, DETAILS AND SCHEDULE
- Z-9 RRRH AND DISTRIBUTION BOX DETAILS
- Z-10 EQUIPMENT AND GENERATOR DETAILS
- Z-11 EQUIPMENT PLANS AND CANOPY ELEVATIONS

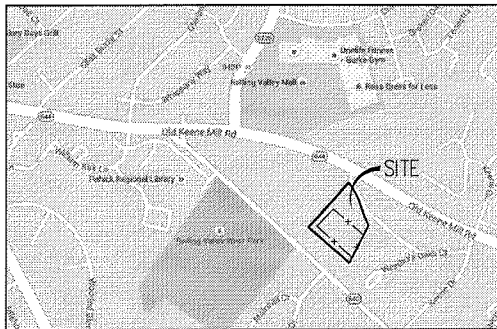
PROJECT DESCRIPTION

- SCOPE OF WORK:
1. INSTALL A NEW 130'-0" MONOPOLE FOUNDATION AND MONOPOLE.
 2. INSTALL GROUNDING, UTILITIES, COMPOUND SUBGRADE, DRIVEWAY AND FENCING.
 3. INSTALL VERIZON WIRELESS EQUIPMENT SLAB ON GRADE AND CANOPY.
 4. INSTALL VERIZON WIRELESS EQUIPMENT.
 5. INSTALL VERIZON WIRELESS PLATFORM, PANEL ANTENNAS AND RRRHs.
 6. INSTALL VERIZON WIRELESS RF CABLES FROM EQUIPMENT TO RRRHs.

PROPERTY OWNER: VIRGINIA ELECTRIC AND POWER COMPANY
P.O. BOX 27007
RICHMOND, VA 23261

APPLICANT: MILESTONE COMMUNICATIONS
12010 SUNSET HILLS ROAD, SUITE 100
RESTON, VA 20107
MR. LEN FORKAS
(703) 602-2555 EX. 104

LATITUDE: N 38° 46' 27.225"
LONGITUDE: W 77° 15' 47.184"
GROUND ELEVATION: 392.63' AMSL
JURISDICTION: FAIRFAX COUNTY
PROPERTY INFO: MAP # 0882 01 0007
CURRENT ZONING: R-1
USE: ELECTRIC TRANSMISSION / TELECOMMUNICATIONS SITE



VICINITY MAP
SCALE: 1" = 1000'



LINE TYPES

BOUNDARY LINE - PARENT PARCEL
UNSURVEYED LINE - BOUNDARY OF ADJOINERS
LINE FOR DIMENSIONS
EASEMENT BOUNDARY
RIGHT OF WAY BOUNDARY
BUILDING SET BACK
EDGE OF ASPHALT
EDGE OF GRAVEL
CURB
FENCE LINE - CHAIN
OVERHEAD UTILITY LINE
TREE OR VEGETATION LINE

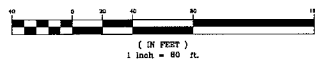
SITE NOTES

- 1.) SITE NAME: KEENE MILL SUBSTATION
- 2.) THIS IS NOT A BOUNDARY SURVEY AND IS NOT TO BE USED FOR THE TRANSFER OF PROPERTY.
- 3.) THE SUBJECT PARCEL INFORMATION:
OWNER: VIRGINIA ELECTRIC AND POWER COMPANY
PREMISES ADDRESS: 9211 OLD KEENE MILL RD
BURKE, VA 22015
COUNTY: FAIRFAX COUNTY
TAX MAP #: 0882 01 0007
TAX DISTRICT: 80000 SPRINGFIELD
ADC MAP: PAGE GRID
ZONING: R-1 (RESIDENTIAL 1 DU/AC)
USE: ELECTRIC TRANSMISSION ROW
- 4.) THE RECORDED REFERENCES FOR THE SUBJECT PARCEL ARE AS FOLLOWS:
DEED: LIBER 01841, FOLIO 0161
AREA: 3.9035 AC.
- 5.) THE DATUMS ARE NAD 83 AND NAVD 86, AND THE BEARING BASE IS STATE GRID.
- 6.) UNDERGROUND UTILITIES HAVE BEEN LOCATED FOR THE DESIGN. THE PRESENCE UTILITIES MUST BE CONFIRMED BY THE CONTRACTOR BEFORE CONSTRUCTION.
- 7.) NO WETLANDS HAVE BEEN DEFINED AND ANY AREAS SHOWN AS MARSH, PONDS OR DITCHES ARE DONE SO FROM VISIBLE SURFACE FEATURES AND IN NO WAY CONSTITUTE A DEFINED WETLAND.
- 8.) THE FLOOD ZONE OF THE PROPOSED MONOPOLE IS AS FOLLOWS: FLOOD ZONE X, AREA OF MINIMUM FLOODING, SOURCE, FEMA FLOOD MAP FOR FAIRFAX COUNTY, VA, COMMUNITY PANEL NUMBER 51059C 0270E, REVISED, SEPTEMBER 17, 2010.
- 9.) A TITLE REPORT WAS REVIEWED FOR THIS PROPERTY.
- 10.) THE DATA COLLECTED AND SHOWN ON THIS DRAWING ARE FOR THE PURPOSES OF CONSTRUCTION OF A CELLULAR MONOPOLE. ANY NECESSARY ANCILLARY EQUIPMENT AND ALL APPROPRIATE EASEMENTS.
- 11.) NO UNRECORDED EASEMENTS ARE SHOWN ON THIS SURVEY AND IT IS POSSIBLE THAT SUCH EASEMENTS IMPACT THE SITE.
- 12.) THIS PROPERTY IS SUBJECT TO ALL MATTERS OF PUBLIC RECORD.
- 13.) THE LOCATION OF THE PROPOSED MONOPOLE IS AS FOLLOWS: THE VALUES LISTED BELOW ARE WITHIN $\pm 50'$ HORIZONTAL AND $\pm 20'$ VERTICAL.
LATITUDE: N 38° 46' 27.275"
LONGITUDE: W 77° 15' 47.184"
ELEVATION: 362.63' AMSL AT BASE

LEGEND

- FOUND PROPERTY CORNER
- △ BENCH MARKS
- UTILITY POLE
- GUY ANCHOR
- SIGN
- LIGHT POLE
- TELEPHONE PEDESTAL
- CULVERT
- INDIVIDUAL TREE - DECIDUOUS
- INDIVIDUAL TREE - CONIFER
- BUSH

GRAPHIC SCALE



SITE PLAN

SCALE: 1" = 80'-0"

MAP #: 0882 05 F1
N/F
COMMONWEALTH OF VIRGINIA
SITE ADDRESS: N/A
MAILING ADDRESS: 202 N 9TH ST,
RICHMOND, VA 23219
BK: 05506 PG: 1349
ZONING: R-3C (R-3 W/CLUSTER DEV)
AREA: 5.909 AC.

MAP #: 0882 01 0004
N/F
BOARD OF SUPERVISORS FAIRFAX COUNTY
SITE ADDRESS: 9220 OLD KEENE MILL RD
BURKE, VA 22015
MAILING ADDRESS: 12000 CVT CENTER PKWY, STE 533,
FAIRFAX, VA 22035
BK: 03627 PG: 0578
ZONING: R-2 (RESIDENTIAL 2 DU/AC)
AREA: 3.1513 AC.

MAP #: 0882 01 0005
N/F
ST ANDREWS EPISCOPAL CHURCH TRS
6508 SYDENSTROCKER RD
BURKE, VA 22015
BK: 10229 PG: 0136
ZONING: R-1 (RESIDENTIAL 1 DU/AC)
AREA: 7.5217 AC.

MAP #: 0882 01 0007
N/F
VIRGINIA ELECTRIC AND POWER COMPANY
SITE ADDRESS: 9211 OLD KEENE MILL RD
BURKE, VA 22015
MAILING ADDRESS: P.O. BOX 27007,
RICHMOND, VA 23261
BK: 01841 PG: 0161
ZONING: R-1 (RESIDENTIAL 1 DU/AC)
AREA: 3.9035 AC.

MAP #: 0882 23 A
N/F
WESTBURY OAK HOA
SITE ADDRESS: 9119 OLD KEENE MILL RD
BURKE, VA 22015
MAILING ADDRESS: P.O. BOX 307,
FAIRFAX STATION, VA 22039
BK: 06030 PG: 1723
ZONING: PDH-4 (RESIDENTIAL 4 DU/AC)
AREA: 5.9566 AC.

EQUIPMENT SETBACK TO ROW LINE	PROPOSED
FENCE (NORTH SIDE)	20.8'
FENCE (SOUTH SIDE)	22.1'
MONOPOLE FACE	24.5'
WESA CABINET	24.5'
VZW EQUIPMENT	24.5'

PROPOSED MONOPOLE SETBACKS	PROPOSED
FRONT YARD (NORTH)	74.8'
REAR YARD (SOUTH)	301.3'
SIDE YARD (WEST)	265.8'
SIDE YARD (EAST)	102.2'
CLOSEST RESIDENCE	456.7'
CLOSEST ROAD	77.8'

STRUCTURE SETBACKS	EXISTING	PROPOSED
FRONT YARD (NORTH)	72.8'	43.0'
REAR YARD (SOUTH)	46.8'	274.0'
SIDE YARD (WEST)	51.8'	280.3'
SIDE YARD (EAST)	0.0'	74.8'

PARKING SETBACKS	EXISTING	PROPOSED
FRONT YARD (NORTH)	55.1'	N/C
REAR YARD (SOUTH)	247.4'	N/C
SIDE YARD (WEST)	177.3'	N/C
SIDE YARD (EAST)	123.4'	112.2'

PARKING TABULATION	
EXISTING REGULAR PARKING SPACE	3
NET PARKING SPACE AFTER CONSTRUCTION	4



6600 Rockledge Drive, Suite 560
BETHESDA, MD 20817
PHONE: (202)408-0960
FAX: (202)408-0961

SUBMITTALS

DATE	DESCRIPTION	REV.
07-08-15	ZONING REVIEW	
07-08-15	ZONING	

SEAL:



PROJECT NO: 1050.175
DESIGNER: R.S.
ENGINEER: M.M.

SCALE:
0 1/2 1
GRAPHIC SCALE IN INCHES

KEENE MILL SUBSTATION
9211 OLD KEENE MILL RD
BURKE, VA 22015

TITLE:
SITE PLAN

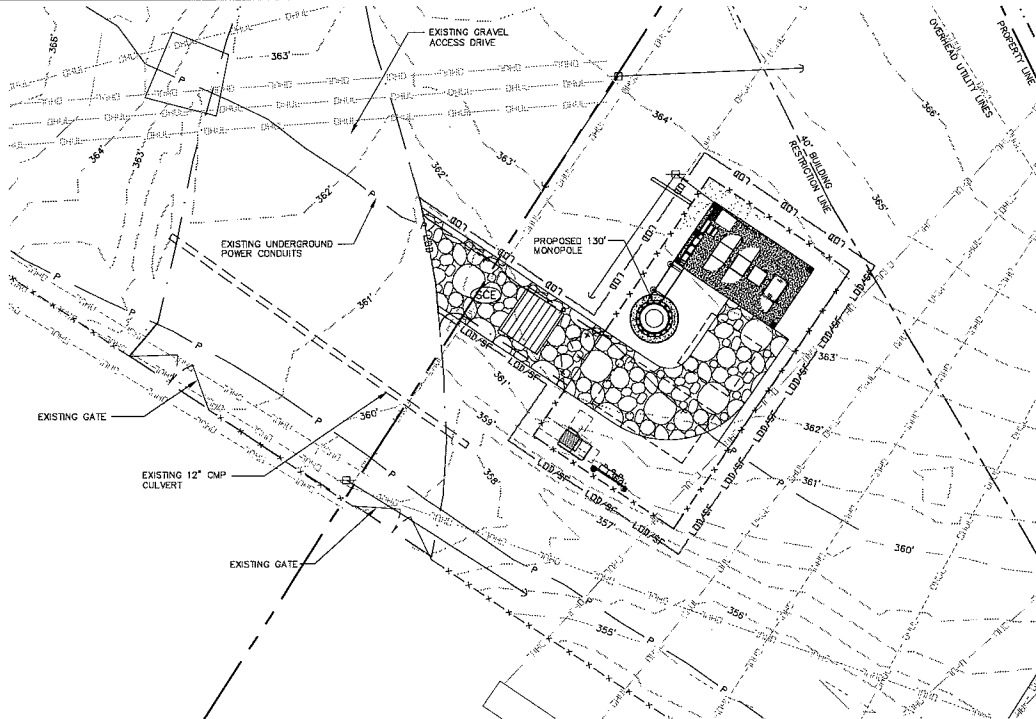
SHEET NUMBER:
Z-1

LINE TYPES

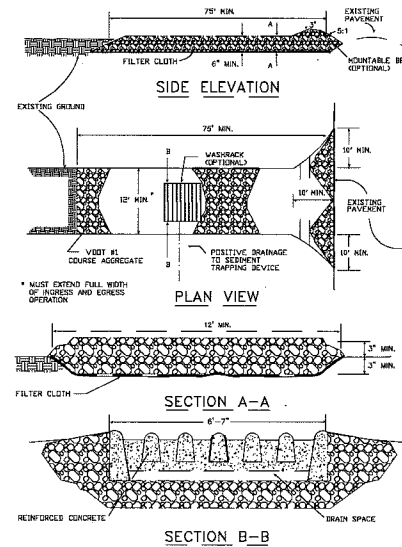
BOUNDARY LINE - PARENT PARCEL
 RIGHT OF WAY BOUNDARY
 EDGE OF ASPHALT
 EDGE OF CONCRETE
 FENCE LINE - CHAIN
 1' CONTOUR LINE
 5' CONTOUR LINE
 LIMITS OF DISTURBANCE
 LIMITS OF DISTURBANCE/ SILT FENCE
 TREE OR VEGETATION LINE

AREA TABULATION

SITE AREA: 3.9035 AC
 DISTURBED AREA: 2,362 SF

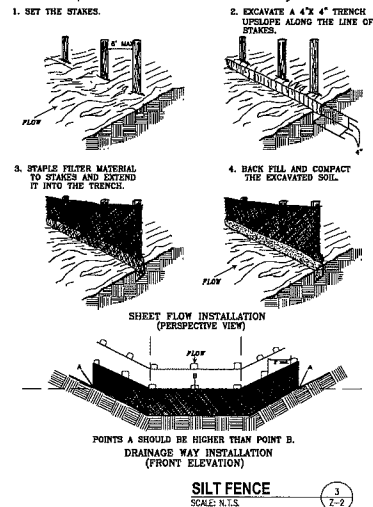


EROSION AND SEDIMENT CONTROL PLAN
 SCALE: 1"=20'-0"



STABILIZED CONSTRUCTION ENTRANCE
 SCALE: N.T.S.

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



- NOTES:
- SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
 - CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING.
 - SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, THE BARRIER SHALL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
 - SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
 - ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DISPOSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEED.

SILT FENCE
 SCALE: N.T.S.

entrex
 communication services, inc.
 6600 Rockledge Drive, Suite 550
 BETHESDA, MD 20817
 PHONE: (202)408-0900
 FAX: (202)408-0951

SUBMITTALS		
DATE	DESCRIPTION	REV.
07-06-15	ZONING REVIEW	
07-28-15	ZONING	



Milestone
 COMMUNICATIONS

PROJECT NO: 1050.175
 DESIGNER: R.S.
 ENGINEER: M.M.

SCALE:
 0 1/2 1
 GRAPHIC SCALE IN INCHES

KEENE MILL
 SUBSTATION
 9211 OLD KEENE MILL RD
 BURKE, VA 22015

TITLE:
**EROSION
 AND SEDIMENT
 CONTROL PLAN
 AND DETAILS**

SHEET NUMBER:
Z-2



6600 Rockledge Drive, Suite 550
BETHESDA, MD 20817
PHONE: (202)408-0960
FAX: (202)408-0961

SUBMITTALS

DATE	DESCRIPTION	REV.
07-08-15	ZONING REVIEW	
07-28-15	ZONING	

SEAL:



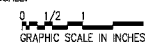
Milestone
COMMUNICATIONS

PROJECT NO: 1050.175

DESIGNER: R.S.

ENGINEER: M.M.

SCALE:



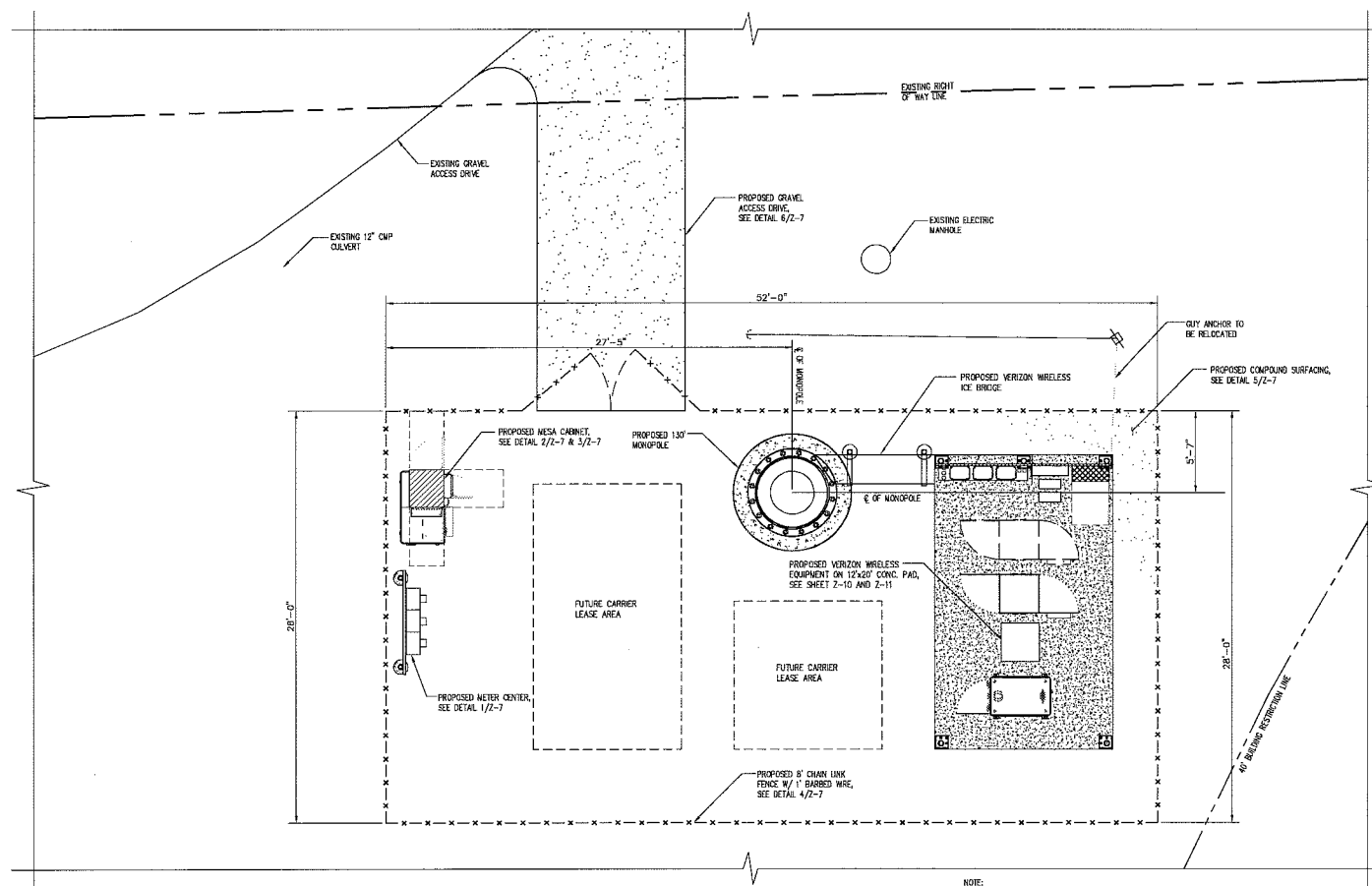
**KEENE MILL
SUBSTATION**
9211 OLD KEENE MILL RD
BURKE, VA 22015

TITLE:

**COMPOUND
PLAN**

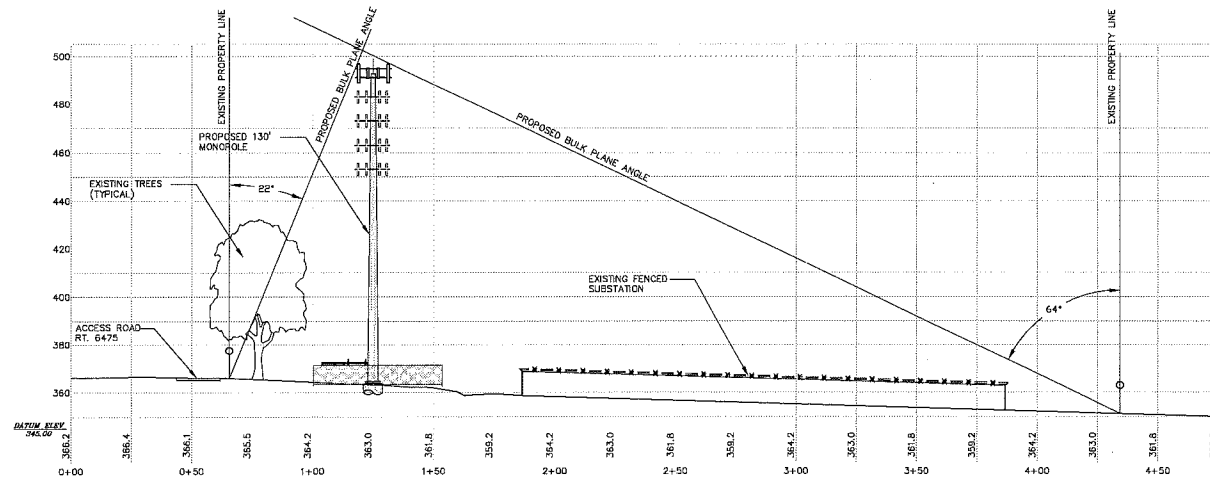
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Z-3

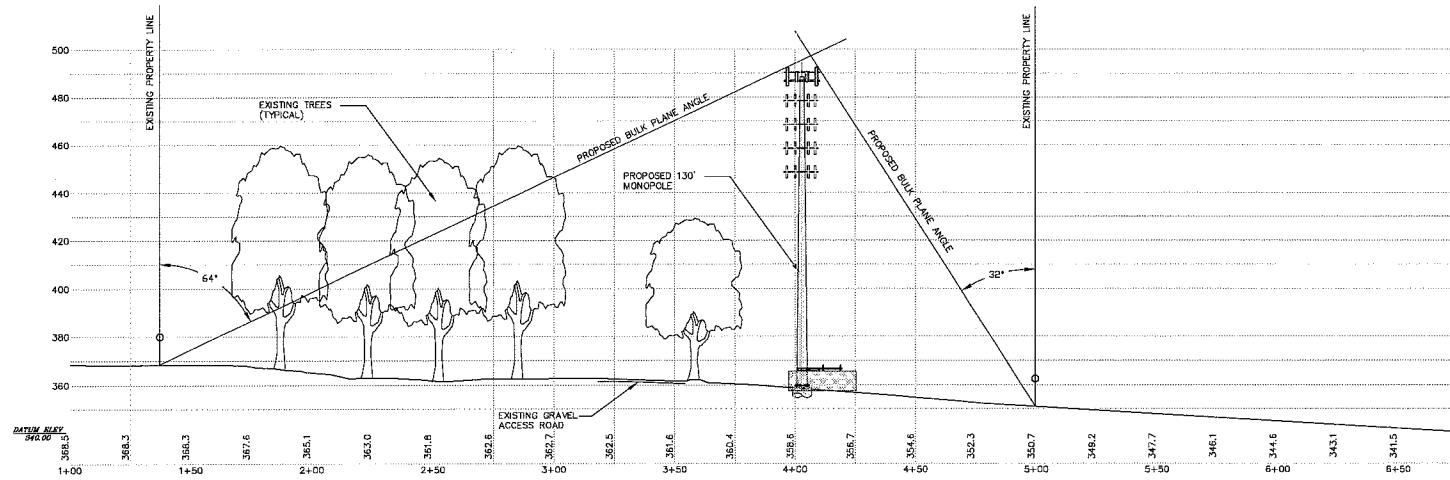


COMPOUND LAYOUT
SCALE: 1/8"=1'-0"





SITE PROFILE NORTH TO SOUTH
 SCALE: 1"=100'-0" HORIZONTAL
 SCALE: 1"=100'-0" VERTICAL



SITE PROFILE WEST TO EAST
 SCALE: 1"=100'-0" HORIZONTAL
 SCALE: 1"=100'-0" VERTICAL



6600 Rockledge Drive, Suite 550
 BETHESDA, MD 20817
 PHONE: (202)408-0980
 FAX: (202)408-0961

SUBMITTALS		
DATE	DESCRIPTION	REV.
07-08-15	ZONING REVIEW	
07-28-15	ZONING	

SEAL:



Milestone
 COMMUNICATIONS

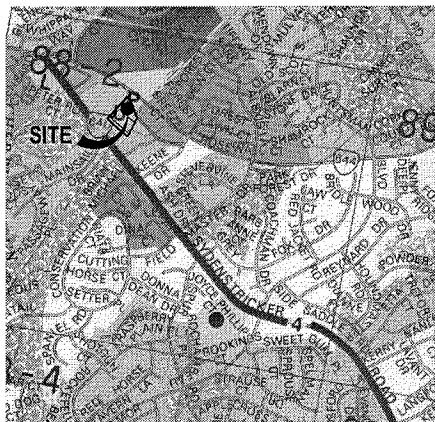
PROJECT NO: 1050.175
 DESIGNER: M.A.
 ENGINEER: M.M.

SCALE:
 0 1/2 1
 GRAPHIC SCALE IN INCHES

**KEENE MILL
 SUBSTATION**
 9211 OLD KEENE MILL RD
 BURKE, VA 22015

TITLE:
SITE PROFILES

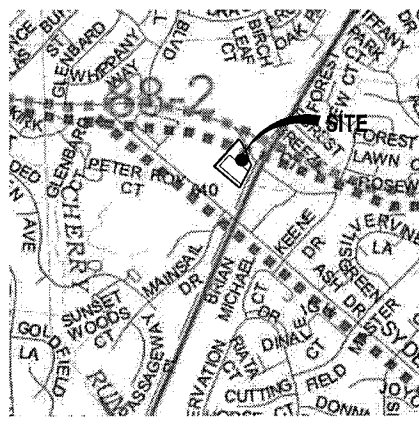
SHEET NUMBER:
Z-5



LAND USE MAP

SCALE: 1"=2000'

SOURCE:
FAIRFAX COUNTY COMPREHENSIVE PLAN

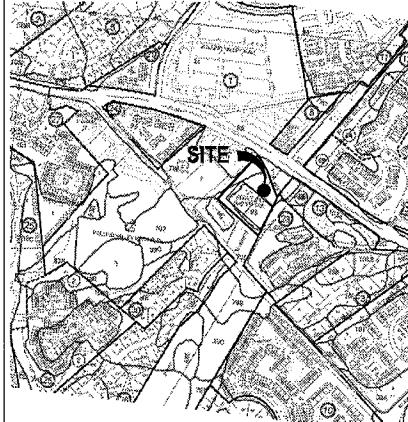


TRAIL MAP

SCALE: 1"=2000'

SOURCE:
FAIRFAX COUNTY

NOTES:
THERE ARE 2 KNOWN NEARBY MAJOR PAVED TRAIL SYSTEM
ALONG OLD KEENE MILL ROAD AND 1 MAJOR PAVED TRAIL
ALONG STEENSTROKER RD.

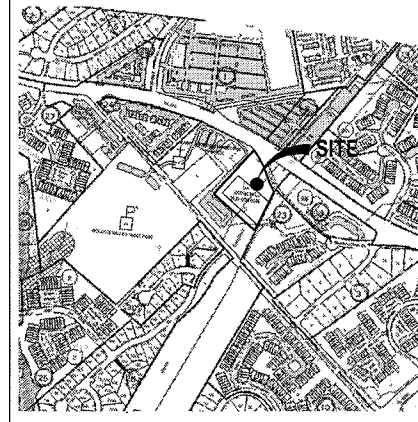


SOILS MAP

SCALE: 1"=1000'

SOURCE:
FAIRFAX COUNTY
MAP SECTION 88-2

NOTE:
SOIL TYPE: 7B
SOIL NAME: BELTSVILLE SILT LOAM
SOIL TYPE: 7BC
SOIL NAME: NATHALIE GRAVELLY LOAM
SOIL TYPE: 85
SOIL NAME: URBAN LAND

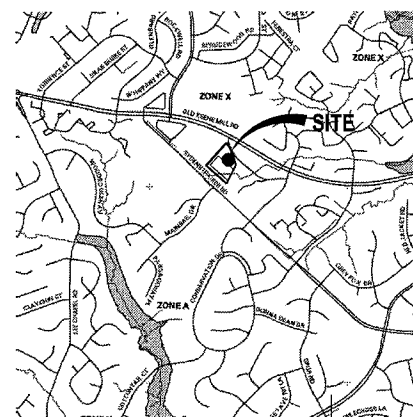


RESOURCE MANAGEMENT MAP

SCALE: 1"=1000'

SOURCE:
FAIRFAX COUNTY

NOTES:
THE PROJECT SITE IS LOCATED APPROXIMATELY 1.587
FROM THE NEAREST RESOURCE PROTECTION AREA.

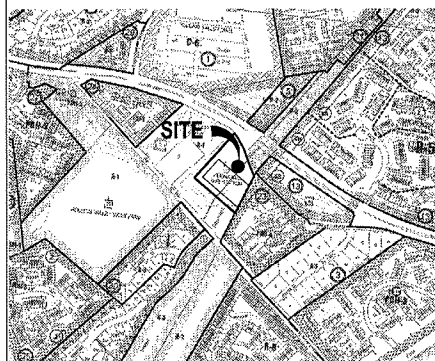


FLOOD ZONE MAP

SCALE: 1"=2000'

SOURCE:
FEMA FLOOD MAP FOR FAIRFAX COUNTY, VA.
COMMUNITY PANEL NUMBER 51059C 02/06, SEPTEMBER 17, 2010.

NOTES:
THE PROJECT SITE IS LOCATED IN FLOOD ZONE X, AREAS DETERMINED
TO BE OUTSIDE 500-YEAR FLOOD-PLAIN.



ZONING MAP

SCALE: 1"=1000'

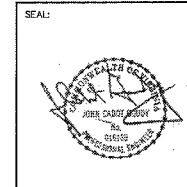
SOURCE:
FAIRFAX COUNTY

NOTES:
THE PROJECT SITE IS LOCATED IN A RESIDENTIAL AREA R-1.



6600 Rockledge Drive, Suite 550
BETHESDA, MD 20817
PHONE: (202)408-0900
FAX: (202)408-0961

SUBMITTALS		
DATE	DESCRIPTION	REV.
07-08-15	ZONING REVIEW	
07-28-15	ZONING	



PROJECT NO: 1050.175
DESIGNER: M.A.
ENGINEER: M.M.

SCALE:
0 1/2 1
GRAPHIC SCALE IN INCHES

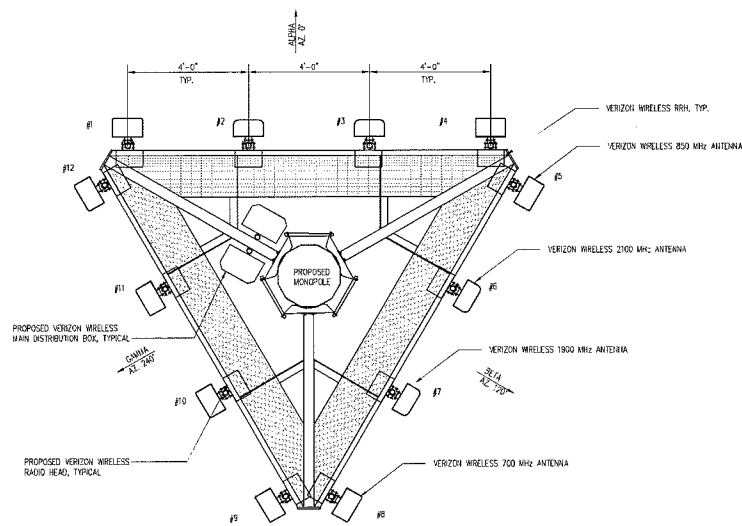
KEENE MILL
SUBSTATION
9211 OLD KEENE MILL RD
BURKE, VA 22015

TITLE:

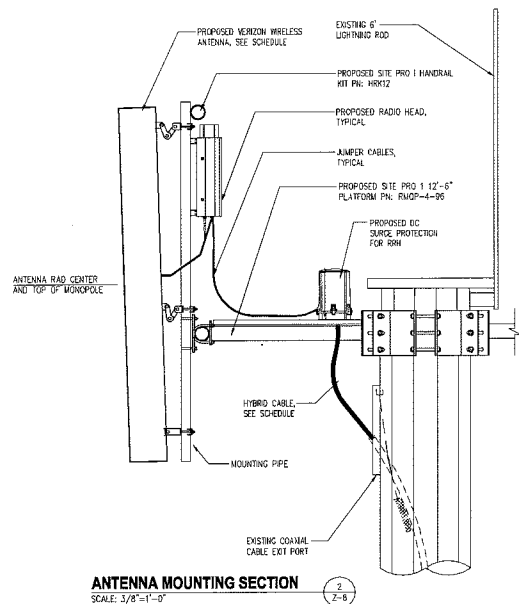
CIVIL MAPS

SHEET NUMBER:

Z-6



ANTENNA MOUNTING LAYOUT
SCALE: 1/4"=1'-0"



ANTENNA MOUNTING SECTION
SCALE: 3/8"=1'-0"

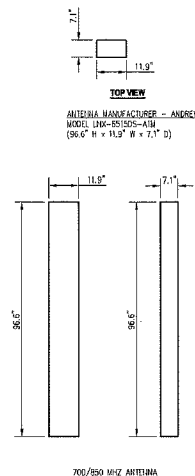
ANTENNA AND CABLE SCHEDULE									
ANTENNA SECTOR	ANTENNA MARK	RAD CENTER	ANTENNA	MECHANICAL DOWN-TILT	AZIMUTH	CABLE LENGTH	COAXIAL CABLE SIZE	COLOR CODE	FREQUENCY
ALPHA	#1	130'-0"	LNK-65150S-AIM (96.6" H x 11.9" W x 7.1" D)	SEE NOTE 6	0°	-	SHARED HYBRID CABLE	R	850 MHZ
	#2	130'-0"	HBRX-65160S-A2M (51.1" H x 12.0" W x 6.5" D)	-	0°	150'	(1) 6X12 HYBRID CABLE	O/R/O	2100 MHZ
	#3	130'-0"	HBRX-65160S-A2M (51.1" H x 12.0" W x 6.5" D)	-	0°	160'	(1) 6X12 HYBRID CABLE	B/P/B/P	1900 MHZ
	#4	130'-0"	LNK-65150S-AIM (96.6" H x 11.9" W x 7.1" D)	-	0°	-	SHARED HYBRID CABLE	O/R/O	700 MHZ
BETA	#5	130'-0"	LNK-65150S-AIM (96.6" H x 11.9" W x 7.1" D)	-	120°	-	SHARED HYBRID CABLE	BL	850 MHZ
	#6	130'-0"	HBRX-65160S-A2M (51.1" H x 12.0" W x 6.5" D)	-	120°	-	SHARED HYBRID CABLE	O/R/O	2100 MHZ
	#7	130'-0"	HBRX-65160S-A2M (51.1" H x 12.0" W x 6.5" D)	-	120°	-	SHARED HYBRID CABLE	B/P/B/P	1900 MHZ
	#8	130'-0"	LNK-65150S-AIM (96.6" H x 11.9" W x 7.1" D)	-	120°	-	SHARED HYBRID CABLE	O/R/O	700 MHZ
GAMMA	#9	130'-0"	LNK-65150S-AIM (96.6" H x 11.9" W x 7.1" D)	-	240°	-	SHARED HYBRID CABLE	Y	850 MHZ
	#10	130'-0"	HBRX-65160S-A2M (51.1" H x 12.0" W x 6.5" D)	-	240°	-	SHARED HYBRID CABLE	O/R/O	2100 MHZ
	#11	130'-0"	HBRX-65160S-A2M (51.1" H x 12.0" W x 6.5" D)	-	240°	-	SHARED HYBRID CABLE	B/P/B/P	1900 MHZ
	#12	130'-0"	LNK-65150S-AIM (96.6" H x 11.9" W x 7.1" D)	-	240°	-	SHARED HYBRID CABLE	O/R/O	700 MHZ
OPS	-	-	MAXRAD OPS-TMC-HR2000HSCOLA (2) REQUIRED	-	-	-	1/2"	-	-

NOTES:

1. ALL ANTENNAS SHALL BE FURNISHED WITH DOWNTILT BRACKETS. CONTRACTOR SHALL COORDINATE REQUIRED MECHANICAL DOWNTILT FOR EACH ANTENNA WITH RF ENGINEER. ANTENNA DOWNTILT SHALL BE SET AND VERIFIED BY A SHARP LEVEL.
2. ANTENNA CENTERLINE HEIGHT IS IN REFERENCE TO ELEVATION 0.0'.
3. FINAL CABLE LENGTHS SHALL BE DETERMINED AFTER INSTALLATION.
4. COORDINATE THE ANTENNA DOWNTILT WITH THE RF ENGINEER.
5. THE CABLE LENGTHS SHOWN ARE THE ACTUAL COMPUTED LENGTHS WITHOUT OVERAGE.
6. REFER TO THE APS FOR THE ANTENNA DOWNTILT REQUIREMENTS.
7. THE CABLE LENGTH IS MEASURED FROM THE MAIN DISTRIBUTION BOX ON THE STRUCTURE TO THE RAYCAP AT THE EQUIPMENT.

CABLE MINIMUM BEND RADIUS

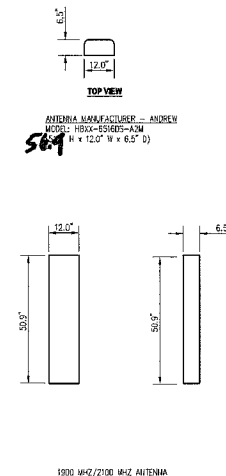
7/8" RF	1-1/4" RF	1-5/8" RF	2-1/4" RF	1.1" HYBRIDEX
10"	15"	20"	22"	10"



FRONT VIEW SIDE VIEW

ANTENNA DETAILS

SCALE: 1/4"=1'-0"



FRONT VIEW SIDE VIEW



6600 Rockledge Drive, Suite 550
BETHESDA, MD 20817
PHONE: (202)408-0960
FAX: (202)408-0961

SUBMITTALS

DATE	DESCRIPTION	REV.
07-06-15	ZONING REVIEW	
07-28-15	ZONING	

SEAL:



PROJECT NO: 1050.176
DESIGNER: R.S.
ENGINEER: M.M.

SCALE:
0 1/2 1
GRAPHIC SCALE IN INCHES

KEENE MILL
SUBSTATION
9211 OLD KEENE MILL RD
BURKE, VA 22015

TITLE:
ANTENNA LAYOUT,
SECTION, DETAILS
AND SCHEDULE

SHEET NUMBER:

Z-8



6600 Rockledge Drive, Suite 550
BETHESDA, MD 20817
PHONE: (202)408-0960
FAX: (202)408-0961

SUBMITTALS		
DATE	DESCRIPTION	REV.
07-06-15	ZONING REVIEW	
07-26-15	ZONING	



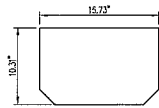
PROJECT NO: 1050.175
DESIGNER: R.S.
ENGINEER: M.M.

SCALE:
GRAPHIC SCALE IN INCHES
0 1/2 1

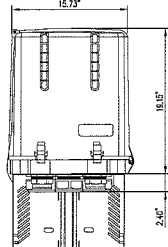
KEENE MILL
SUBSTATION
9211 OLD KEENE MILL RD
BURKE, VA 22015

TITLE:
RRH AND
DISTRIBUTION BOX
DETAILS

SHEET NUMBER:
Z-9

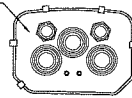


PLAN VIEW

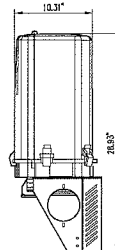


FRONT VIEW

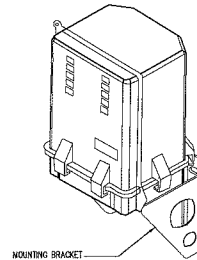
PROVIDE FITTING
FOR EXTENSION OF
HYBRIFLEX CABLES



BOTTOM VIEW



SIDE VIEW

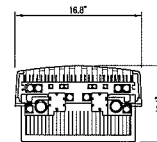


MOUNTING BRACKET

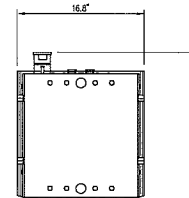
MANUFACTURER: RAYCAP
DIMENSIONS: 10.31x15.73x18.15\"/>

MAIN DISTRIBUTION BOX DETAILS
SCALE: 3/4\"/>

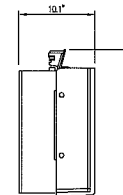
1
Z-9



PLAN VIEW



FRONT VIEW



SIDE VIEW

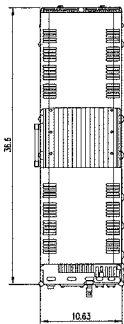
MANUFACTURER: ALCATEL-LUCENT
DIMENSION: 10.1\"/>

NOTE:
1. INSTALL RRH PER MANUFACTURE RECOMMENDATION.
2. FIBER, DC POWER AND GROUND CONNECTION NOT SHOWN.

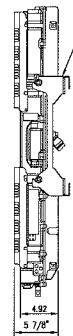
700 MHz RRH DETAIL

SCALE: 3/4\"/>

2
Z-9

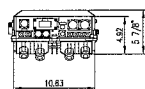


FRONT VIEW



SIDE VIEW

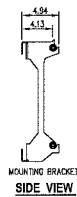
MOUNTING BRACKET



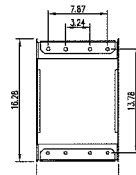
PLAN VIEW

MANUFACTURER: ALCATEL-LUCENT
POWER SUPPLY: 48 VDC
DIMENSION: 9.5\"/>

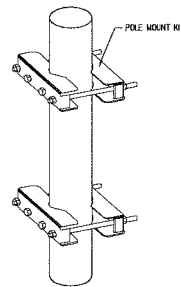
2100 MHz AND FUTURE RRH DETAIL
SCALE: 3/4\"/>



SIDE VIEW

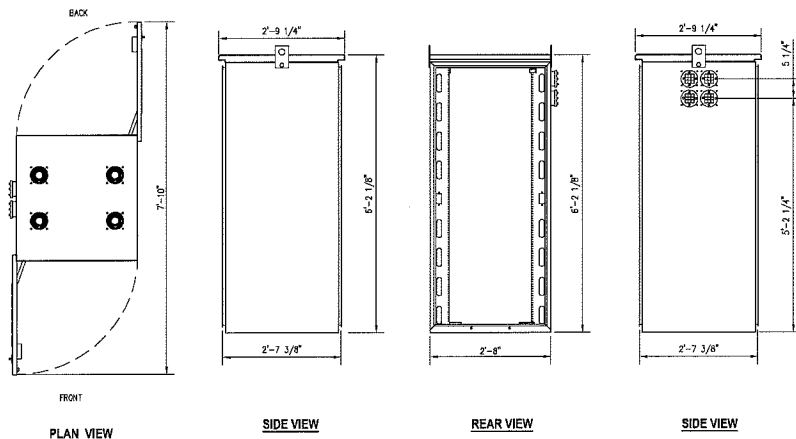


REAR VIEW



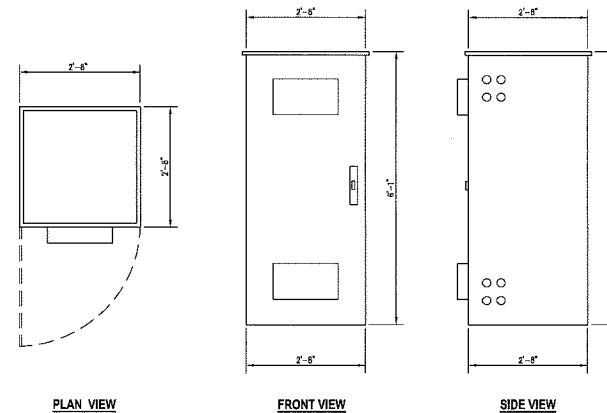
ISOMETRIC VIEW

POLE MOUNT KIT



CHARLES CABINET DETAIL
SCALE: 3/8"=1'-0"

1
Z-10



MODEL: CUBE-BBOLUPNY
CABINET WEIGHT EMPTY = 900 LBS
CABINET WEIGHT WITH BATTERIES = 3,450 LBS
CABINET VOLUME = 44 CF

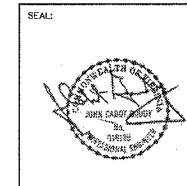
CHARLES BATTERY CABINET DETAILS
SCALE: 3/8"=1'-0"

2
Z-10



6600 Rockledge Drive, Suite 550
BETHESDA, MD 20817
PHONE: (202)408-0960
FAX: (202)408-0991

SUBMITTALS		
DATE	DESCRIPTION	REV.
07-08-15	ZONING REVIEW	
07-28-15	ZONING	



PROJECT NO: 1050.175
DESIGNER: R.S.
ENGINEER: M.M.

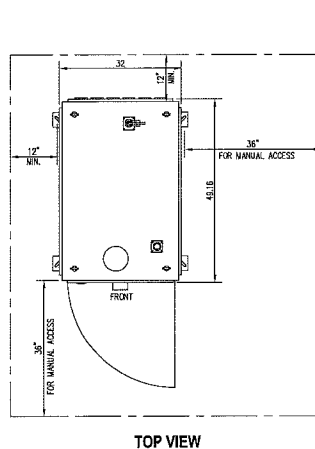
SCALE:
0 1/2 1
GRAPHIC SCALE IN INCHES

KEENE MILL
SUBSTATION
9211 OLD KEENE MILL RD
BURKE, VA 22015

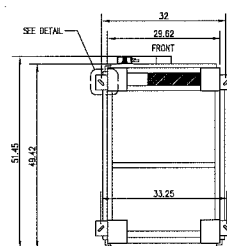
TITLE:
**EQUIPMENT
AND
GENERATOR
DETAILS**

SHEET NUMBER:

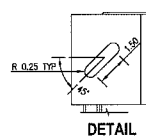
Z-10



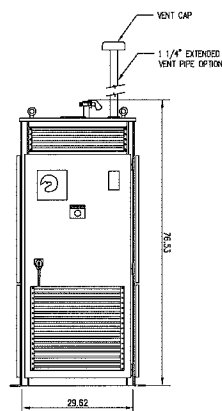
TOP VIEW



BOTTOM VIEW



DETAIL

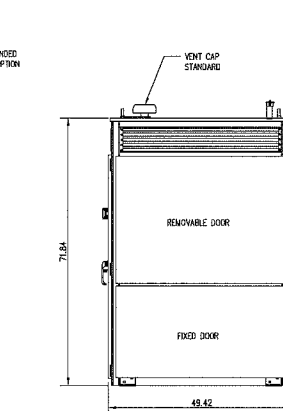


FRONT VIEW

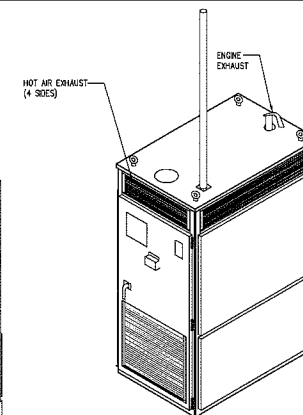
GENERATOR WEIGHT EMPTY= 1220 LBS
GENERATOR WEIGHT WITH 55 GAL DIESEL FUEL = 1,660 LBS
GENERATOR VOLUME = 61 CF

POLAR - DC GENERATOR DETAILS

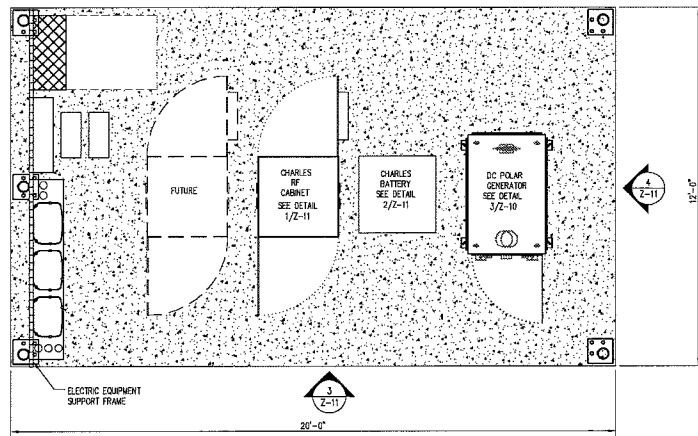
SCALE: 3/8"=1'-0"



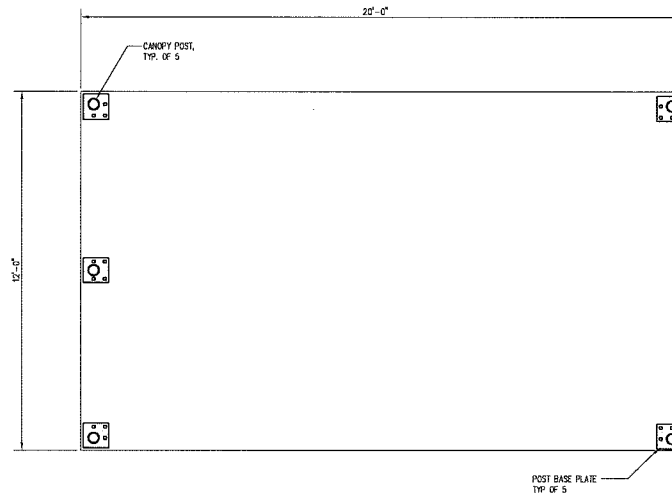
SIDE VIEW



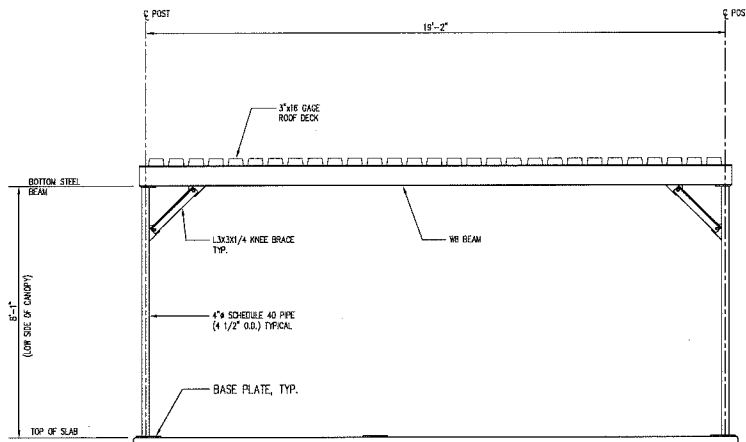
ISOMETRIC VIEW



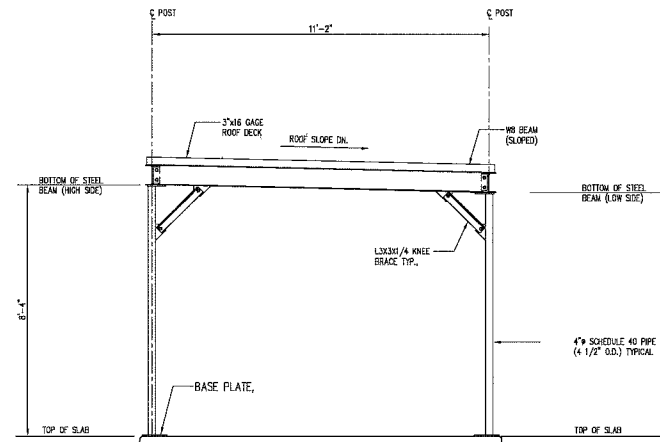
EQUIPMENT LAYOUT PLAN
SCALE: 1/4"=1'-0"
1
2-11
TRUE NORTH



CONCRETE EQUIPMENT SLAB PLAN
SCALE: 1/4"=1'-0"
2
2-11
TRUE NORTH



CANOPY ELEVATION
SCALE: 1/4"=1'-0"
3
2-11

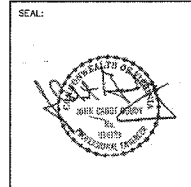


CANOPY ELEVATION
SCALE: 1/4"=1'-0"
4
2-11



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BETHESDA, MD 20817
PHONE: (202) 408-0960
FAX: (202) 408-0961

SUBMITTALS		
DATE	DESCRIPTION	REV.
07-08-15	ZONING REVIEW	
07-28-15	ZONING	



PROJECT NO: 1050.175
DESIGNER: R.S.
ENGINEER: M.M.

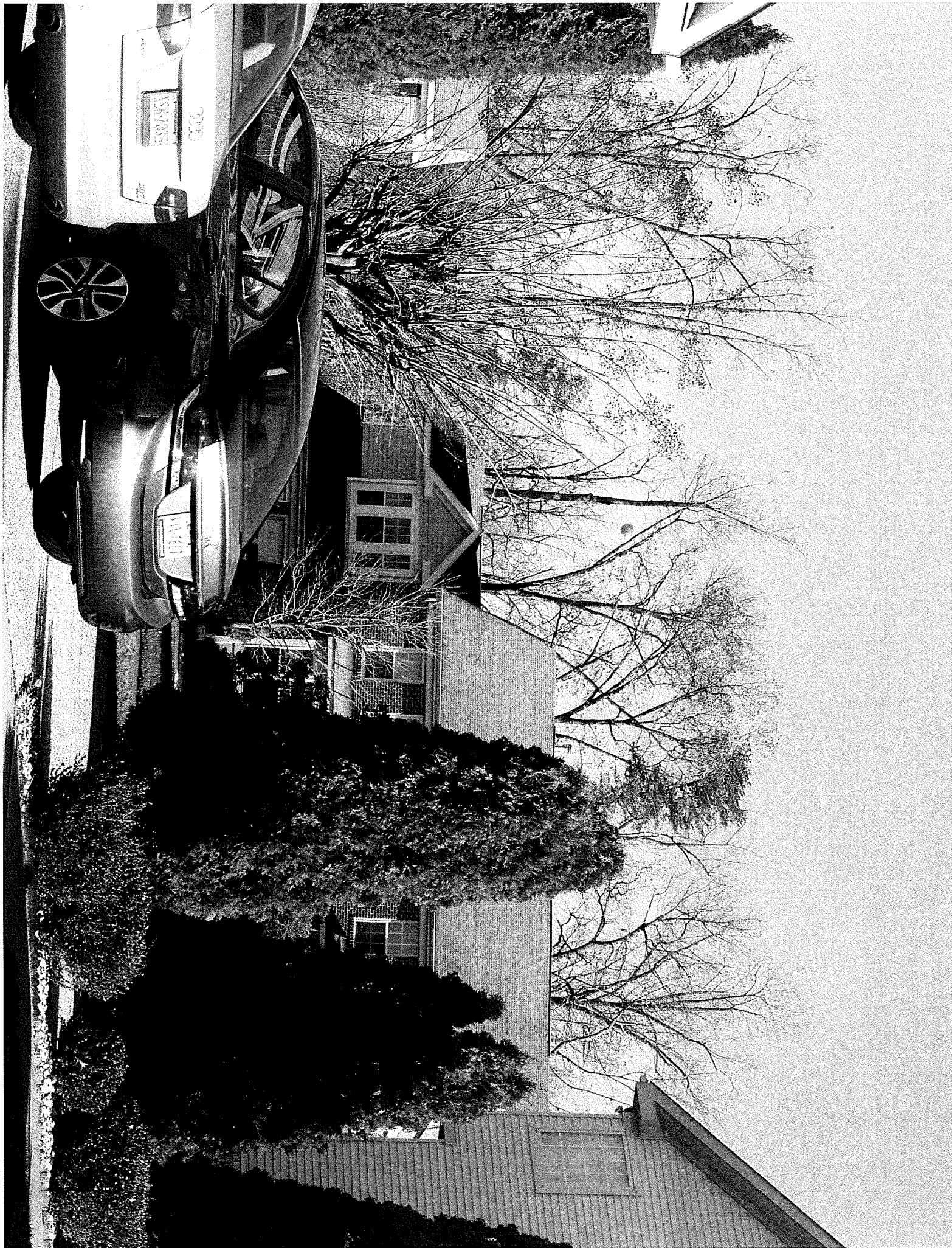
SCALE:
GRAPHIC SCALE IN INCHES
0 1/2 1

KEENE MILL
SUBSTATION
9211 OLD KEENE MILL RD
BURKE, VA 22015

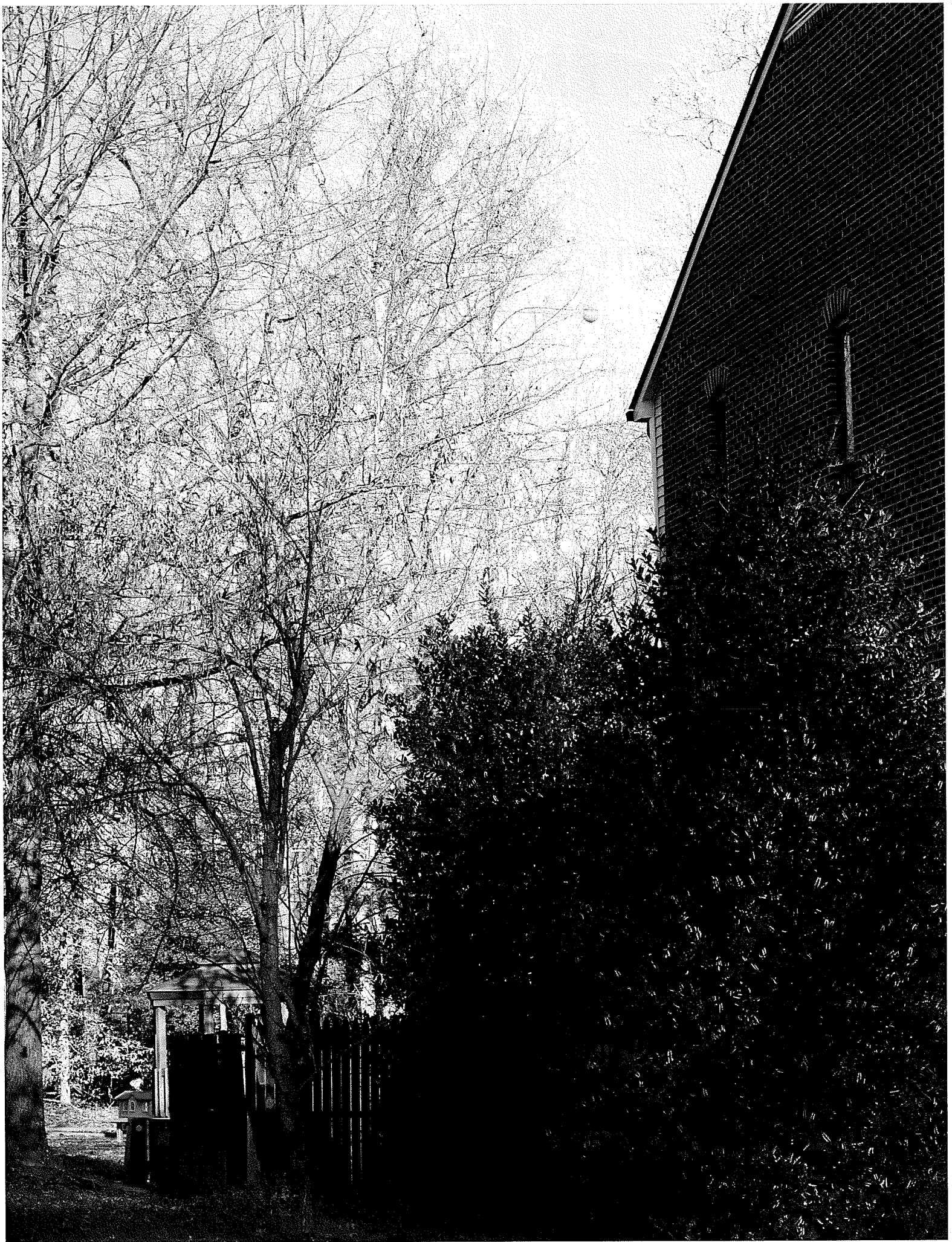
TITLE:
**EQUIPMENT
PLANS AND
CANOPY
ELEVATIONS**

SHEET NUMBER:
Z-11









Knight, Natalie

From: Hushour, Andrew
Sent: Friday, October 09, 2015 1:36 PM
To: Knight, Natalie
Cc: Gardner, Stephen
Subject: 2232-S15-9; Verizon Wireless & Milestone Communications; 9211 Old Keene Mill Road

2232-S15-9

Verizon Wireless & Milestone Communications - construction of 130 foot monopole, to include 12 panel antennas and associated equipment; within existing Virginia Power easement on substation property.

9211 Old Keene Mill Road

Tax Map Ref.: 88-2 ((1)) 7

Zoning District: R-1

Comments: The proposal appears to meet the requirements set forth in Par. 3 of Sect. 2-514 of the Zoning Ordinance, with the following exceptions:

- The proposed screening of the equipment compound must comply with Par. 3.F., Sect. 2-514, for those structures located within a utility transmission easement.

- A steady read marker light is required for all structures exceeding 100 feet in height, unless such is waived by the Zoning Administrator, with consultation with the Fairfax County Police Department, at the request of the applicant.

ZED: Must be in substantial conformance with Special Permit #4773.

Prepared by Andrew Hushour – 10/9/2015



County of Fairfax, Virginia

MEMORANDUM

DATE: October 28, 2015

TO: Chris B. Caperton, Chief
Facilities Planning Branch, Planning Division, DPZ

FROM: Kevin Guinaw, Chief *K. Guinaw*
Special Projects/Applications Management Branch, Zoning Evaluation Division, DPZ

SUBJECT: Proposed Verizon Telecommunications Facility at 9211 Old Keene Mill Road;
Tax Map 88-2 ((1)) 7; Public Facility Application 2232-S15-9

This memorandum is in response to a request for a determination as to whether the telecommunications facilities proposed by Cellco Partnership, d/b/a Verizon Wireless and Milestone Tower Limited Partnership III, at 9211 Old Keene Mill Road, would be in substantial conformance with SP 4773, approved by the Board of Zoning Appeals to allow an electrical substation.

As described in the public facility 2232 telecommunications application received by the Zoning Evaluation Division on October 9, 2015, from Frank W. Stearns, agent for the application, the following is proposed: 1) construction of a 130 foot monopole inside of a new 1,456 square foot fenced compound area within an existing Virginia Power easement; 2) installation of six panel antennas, measuring 96.6 inches in height, 11.9 inches in width, and 7.1 inches on the new monopole at a RAD center of 130 feet; 3) installation of six additional panel antennas, measuring 50.9 inches in height, 12 inches in width, and 6.5 inches on the monopole at a RAD center of 130 feet; 4) construction of a 240 square foot concrete slab within the compound area, covered by a steel canopy 8.1 feet in height; 5) installation of two equipment cabinets, one measuring 74 inches in height, 32 inches in width, and 33 inches in depth, and another measuring 73 inches in height, 32 inches in width, and 32 inches in depth on the new concrete slab; 6) installation of an equipment cabinet measuring 46.2 inches in height, 36.4 inches in width, and 39.4 inches in depth within the compound; and 7) installation of a generator measuring 75.5 inches in height, 29.6 inches in width, and 49.4 inches in depth on the concrete slab.

The Zoning Administration Division has determined that the telecommunications facilities, as described above, is a permitted use pursuant to the provisions of Sect. 2-514 of the Zoning Ordinance, provided that: 1) the proposed facilities are determined to be in substantial conformance with any governing zoning approval; 2) the proposed screening of the equipment compound complies with Par. 3.F., Sec. 2-514 of the Zoning Ordinance, for telecommunications facilities located within a utility easement; and 3) a steady red marker light is installed on the monopole, unless waived by the Zoning Administrator in consultation with the Police Department at the applicant's request.

The proposed monopole and associated equipment compound would be located within an existing Virginia Power easement. The proposed compound is set back from the easement line at its closest point by 20.6 feet, meeting the 20 foot setback required by Par. 3.D., Sec. 2-514. The motion for approval of SP 4773 by the BZA on December 8, 1959 carried a provision requiring that the area of the substation be properly screened and fenced in accordance with a submitted plat, that the applicant retain all natural growth which would provide screening, and that cedar trees be planted as screening on sides of the property where there was no natural growth. The proposed facilities do not alter or impact the screening provided pursuant to SP 4773.



Chris Caperton
Page 2

The special permit was not approved subject to a development condition limiting uses on the site to those depicted on a plat, as would be typical in a contemporary special permit or special exception approval. In this unique circumstance, an amendment to the existing special permit is not required to permit the proposed telecommunications facilities.

It is my determination that the proposed telecommunications facilities are in substantial conformance with SP 4773. This determination has been made in my capacity as the duly authorized agent of the Zoning Administrator. If you have any questions regarding this memorandum, please call Jonathan Buono at (703) 324-1290.

N:\Interps\Antennas\ANT 15 10 053 Verizon 9211 Old Keene Mill Rd.Docx

Attachments: A/S

cc: Pat Herrity, Supervisor, Springfield District
Peter F. Murphy, Planning Commissioner, Springfield District
Board of Zoning Appeals
Barbara C. Berlin, Director, Zoning Evaluation Division, DPZ
Diane Johnson-Quinn, Deputy Zoning Administrator, Zoning Permit Review, ZAD, DPZ
File: SP 4773, ANT 15 10 053, Imaging

Knight, Natalie

From: Fuze, Ian
Sent: Monday, September 28, 2015 3:00 PM
To: Knight, Natalie
Subject: RE: Keene Mill Substation 2232

Hi Natalie, If the sheets are the same as the waiver sheets I approved then I have no additional comments.

Ian

From: Knight, Natalie
Sent: Monday, September 28, 2015 2:55 PM
To: Fuze, Ian
Subject: RE: Keene Mill Substation 2232

Hello Ian,

I am told that the transitional screening waiver for this application was approved in August. Do you have comments ready for this 2232 application?

Natalie

From: Knight, Natalie
Sent: Tuesday, September 15, 2015 10:48 AM
To: Fuze, Ian
Subject: Keene Mill Substation 2232

Hello Ian,

I am checking to see if you have comments ready for this application. We spoke about this application a few weeks ago and I'm curious about the status.

Thank you,

Natalie